

Improving Information Technology (IT) Investment Management and Oversight: From Clinger Cohen Act (CCA) To DoD Transformation

Executive Briefing & Project Report

Department of Defense (DoD)
Deputy CIO - Commercial Policies & Oversight (CP&O)
Acquisition, Technology & Logistics (AT&L)

Final Assessment Report
3 March 2005



Table Of Contents

Executive Summary

- I. Introduction and Methodology
- II. Key Findings
- III. Recommended Solutions
- IV. Conclusion
- V. Appendices

IT Investment Management and Oversight: The Policy Context of CCA

- The 1996 Clinger Cohen Act (CCA) was implemented to force effective IT investment management principles, procedures, and oversight across the Federal Government.
- DoD policy makers faced the policy challenge of embedding CCA requirements into a complex array of pre-existing management and investment systems, such as Acquisition and Planning/Budgeting processes.
- CCA has since been subsumed into USC Title 40, and is now supplemented by other requirements beyond its core, including:
 - Requirements for annual certification reports to Congress for MAIS, embedded within Appropriations and Authorization language.
 - A myriad of guidance and reporting requirements by both DoD IT Policy and functional organizations and DoD Component CIO's.
- CCA implementation complexities – within the broader Title 40 context of IT investment management and oversight – led the Deputy CIO to initiate the CCA Assessment Project. AT&L soon joined this effort, for a more complete look across DoD communities.

Project Objective and Goals: Beginning with CCA – Leading to Broader Impacts

- **Project Overview:** The CCA Assessment Project was conducted between May and December 2004 as a joint effort between the DoD Deputy CIO and AT&L.
- **Driving Objective:** Lay the groundwork for strengthening the integration and effectiveness of information technology within the broader Acquisition process from concept to sustainment.

Driving Study Goals:

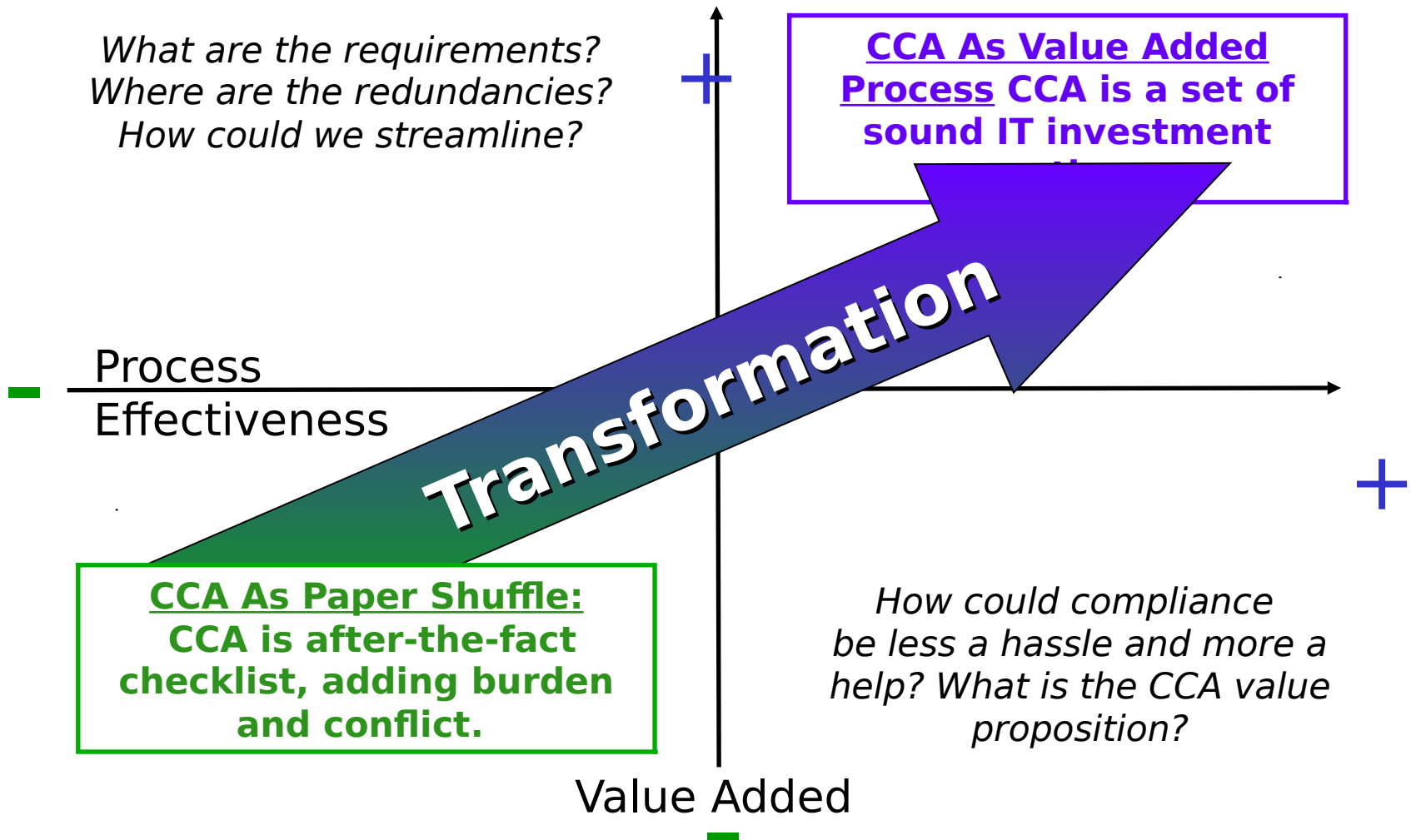
1. Strengthen CIO capability at all levels to encourage eventual delegation of CCA authority to Component CIO's* and transform DoD CIO's leadership role into risk-based oversight, coaching and training.
2. Identify current CCA reporting requirements and processes, and seek ways to streamline and remove redundancies.
3. Integrate CCA as a “transformation enabler” into Acquisition systems and processes.**
4. Align CCA implementation with other DoD transformation initiatives.

* - Our report refers to “Component CIO” to include both MILDEP CIO's and Agency CIO's. Specifically, this study included participants from Army, Air Force, Department of Navy, Defense Information Systems Agency, and Defense Finance & Accounting Service.

** - We use the term “Acquisition process” to refer to the full life cycle of IT investment, Acquisition, and management activities from concept through sustainment.

The CCA Assessment Project involved more than 200 people in more than 25 offices across DoD.

Analytical Framework: From Paper Shuffle TO Value Added Process



Key Findings Summary: Goals, Roles, Process & Knowledge

Finding Category	Overview Statement of Finding
Issue #1: CCA Goals and Context	• A wide range of DoD IT investment and management guidance and other management initiatives complicate policy implementation. This leads to confusion about CCA goals and uneven accomplishment of objectives. • At the policy level, CCA is seen as the cornerstone of Net-Centricity; at the program level, it is seen as a burdensome compliance issue.
Issue #2: Role Definition	• Multiple organizations play roles in ensuring effective IT management. Roles and responsibilities across players are unclear and redundant. • The DoD CIO both advises on IT policy issues, and oversees program compliance with IT needs. Component CIO's carry out IT policy and oversight roles and responsibilities differently. • Currently, PM's are often responsible for milestone documentation of decisions made during pre-program activities – decisions made before PM is on board.
Issue #3: Timing and Process	• Timing drives the perceived effectiveness of CCA – many see CCA milestone compliance as “after-the-fact” compliance rather than useful management tool. • In some instances, CCA requirements have been layered upon, rather than interwoven with, existing processes and documentation.
Issue #4: Knowledge Management	• Ineffective communication and training aggravate the perception of CCA redundancies. • There is no consistent understanding of expectations related to CCA

Key Findings Implications: Direction for Future Transformation

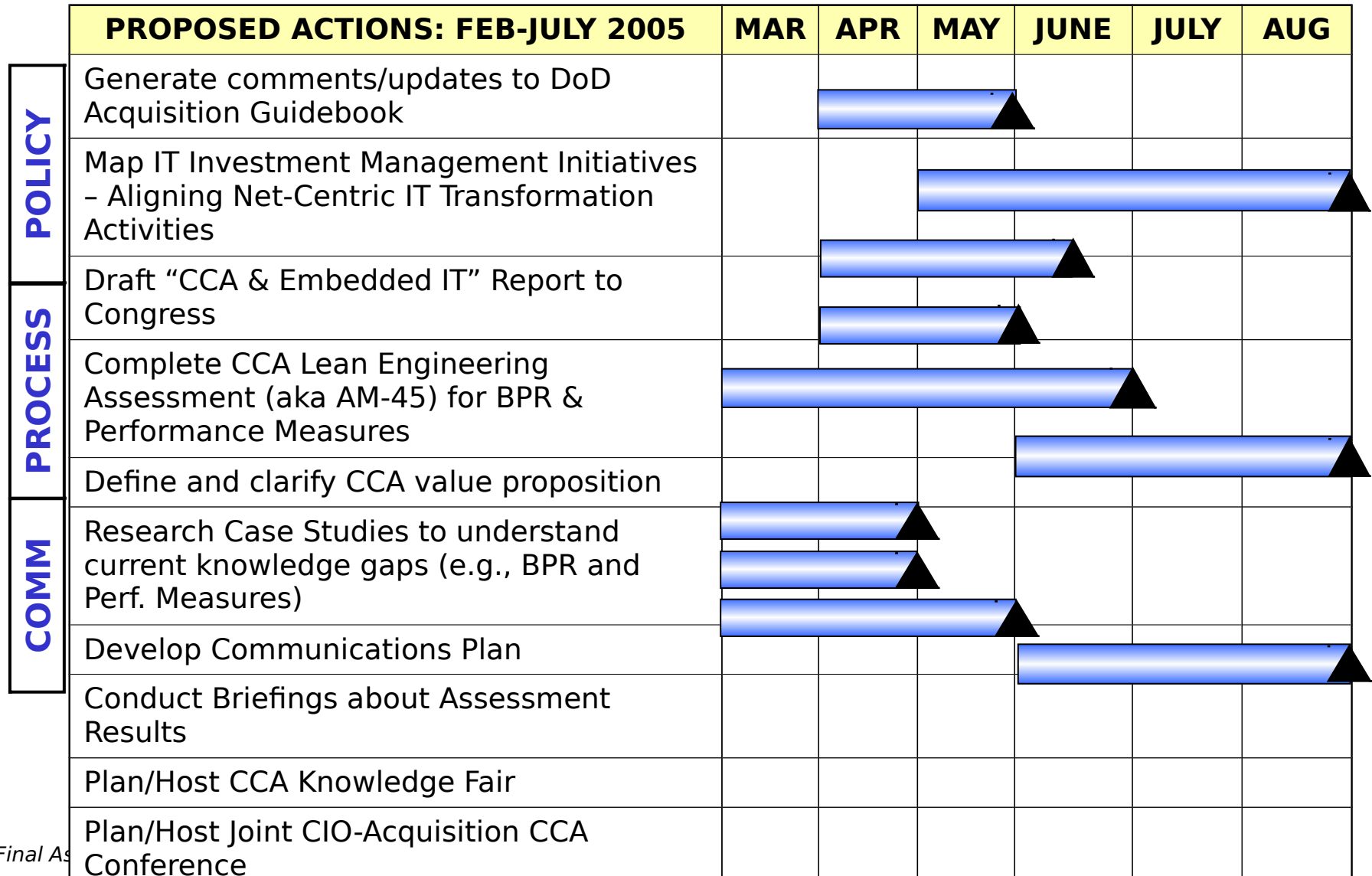
- This assessment concluded that DoD can create more effective and less burdensome IT investment management and oversight practices by changing how CCA and its associated context and requirements are understood, communicated and implemented.
- Proposed solutions from this study:
 - Examine the role of Congressional CCA certification requirements for MAIS in light of today's DoD IT investment management landscape.
 - Build upon established collaborative processes between Acquisition, CIO, and other key IT investment players.
 - Emphasize improved communication and training.
 - Recommend Net-Centric tools to streamline existing processes and reporting.
- The study also proposes articulating more clearly the value proposition of CCA implementation, to improve assessment and continuing process improvement.

Solutions Summary: Transforming CCA Implementation

Project recommendations fall into three general categories:

Recommendation Category	Related Solutions
Policy Coordination	• Leverage legislation, new policy, and draft guidance that involve or interweave CCA concerns. • Align with other IT management policy initiatives. • Target IT policy-level needs and IT capability definition and development.
Process Improvement	• Clarify CIO roles across levels and eliminate reporting redundancies. • Refocus CIO efforts from CCA compliance checks to active involvement across life cycle. • Clarify authorities and establish equivalencies for each key CCA element.
Communications Planning	• Provide realistic CCA functional job aids. • Define and clarify the value proposition of effective CCA implementation. • Improve CCA outreach across stovepipes.
MOVE FROM "AFTER-THE-FACT OVERSIGHT" TO "IN-PROCESS INSIGHT" & From Paper Shuffle to Value-Added Process	

First Steps to Transformation: Translating Solutions to Near-Term Actions



Conclusion & Call to Action

- Transforming DoD's implementation and related perceptions of CCA will require OSD and Component commitment to both near-term wins and long-term transformative leadership.
- It is time to reframe CCA in the context of both present and future directions in IT investment management and oversight – where requirements are a value-added management tool, rather than a compliance hurdle.
- We request your concurrence with proposed solutions and near-term actions, and the continued involvement of your leadership teams. Their support made this study possible – and will ensure future success across DoD.

The Path to Date & The Road Ahead

Assessment:

Learning “As-Is” Perceptions
&
Defining the “To-Be” State



Reporting:

Report Perceptions &
Concur on Next Steps



Dialogue & Delivery:

Implement policy
coordination, process
improvement, and
communication solutions

Table Of Contents

Executive Summary

I. Introduction and Methodology

II. Key Findings

III. Recommended Solutions

IV. Conclusion

V. Appendices

Report Overview & Purpose

- This report describes the results of the Clinger Cohen Act (CCA) Assessment Project, conducted between May and December 2004.
- This project was a joint effort between the Department of Defense (DoD) Deputy CIO and AT&L offices, and involved more than 200 people from more than 25 organizations across the Department.
- **Report Contents:**
 - Introduction and Project Goals
 - Methodology
 - Key Findings
 - Recommended Solutions
 - Conclusion

Project Purpose

The Deputy CIO, in cooperation with AT&L, initiated the CCA Project to identify ways to improve CCA policy and implementation across DoD.

Driving Objective

Lay the groundwork for strengthening the integration and effectiveness of information technology within the broader Acquisition process from concept to sustainment.*

* - Throughout this report, we use the term “Acquisition process” to refer to the full life cycle of IT investment, Acquisition, and management activities from concept through sustainment.

CCA Project: Primary Goals

- **Goal #1:** Strengthen CIO capability at all levels to encourage eventual delegation of CCA authority to Component CIO's* and transform DoD CIO's leadership role into risk-based oversight, coaching and training.
- **Goal #2:** Identify current CCA reporting requirements and processes, and seek ways to streamline and remove redundancies.
- **Goal #3:** Integrate CCA as a “transformation enabler” into Acquisition systems and processes from concept through sustainment.
- **Goal #4:** Align CCA implementation with other DoD transformation initiatives.

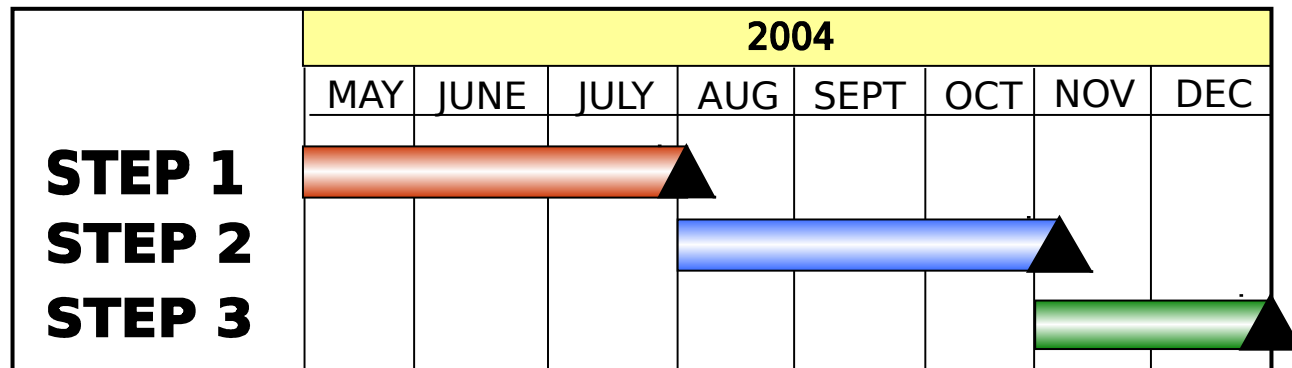
* - The study included participants from both MILDEP CIO's and Agency CIO's. In particular, this study included participants from Army, Air Force, Department of Navy, Defense Information Systems Agency (DISA), and Defense Finance & Accounting Service (DFAS).

Project Timeline: Overview

- **Step 1:** Project Planning Phase
 - Background Research
 - Headquarters Focus Groups
- **Step 2:** Component Assessment Phase
 - Focus Group Design
 - Component Interviews and Groups
- **Step 3:** Analysis & Reporting Phase
 - Follow-up Interviews
 - Analysis & Report Preparation

The CCA Assessment Project involved more than 200 people in more than 25 organizations across DoD.

Project Steps and Assessment Methodology are described further on the following slides.



Project Activities:

Step 1: Project Planning

✓ Research and Study Design

- Headquarters Focus Groups conducted to gather CCA-related information and perceptions.
- Background research confirmed focus group messages and revealed other CCA-related concerns.
- Study design and analytical framework established to ensure systematic approach.

✓ Stakeholder Involvement

- AT&L joined CIO during this phase - broadening the scope and potential benefits across both the Acquisition & Information Technology (IT) communities, and across the program life cycle.
- The Study Team briefed selected Component CIO's and SAE's during the planning phase of this effort. This effort has received consistent support and commitment across the DoD community.

Planning Phase Achievements

Identified initial CCA perspectives across stakeholder groups.

Obtained Senior-Level support from both CIO and AT&L communities.

Finalized assessment methodology involving broad stakeholder community.

Project Activities:

Steps 2 & 3: Assessment & Reporting

☒ Step 2: Assessment

- Conducted briefings and focus groups across a broad range of stakeholders to gain multiple perspectives and perceptions about CCA implementation.
- Conducted research and literature reviews to identify opportunities to align CCA with other DoD initiatives and requirements.



✓ Step 3: Reporting

- This briefing is the product of the reporting phase, and is designed to identify both immediate proposed actions and long-term strategies related to enhancing CCA implementation – at both the policy and program compliance levels.

Organizations Represented in Assessment:

Army, Air Force, Department of Navy, Defense Information Systems Agency (DISA), Defense Finance & Accounting Service (DFAS), Joint Staff (J-6 and J-8), Defense Acquisition University (DAU) Program Management Classes & Information Resources Management College (IRMC) CIO Certificate Program Classes, DoD Initiative Specialists, DoD Deputy CIO, Networks & Information Integration (NII), Program Analysis & Evaluation (PA&E), Logistics Domain Representative, Government Accountability Office (GAO)

and the RAND Corporation

Assessment Methodology

- The Study Team used a standard data collection methodology across participants to ensure consistency, while respecting multiple viewpoints and experiences.
- **Assessment Approaches:**
 - The driving analytical framework for the study was a continuum, capturing a range of perceptions related to CCA. This framework was a key tool with focus groups.
 - Focus groups also ranked the relative importance of CCA elements in meeting CCA goals, and recommended actions that specific players can take to improve CCA implementation.
 - Individual interviews were targeted toward specific subject areas, based on expertise.

Assessment Approach

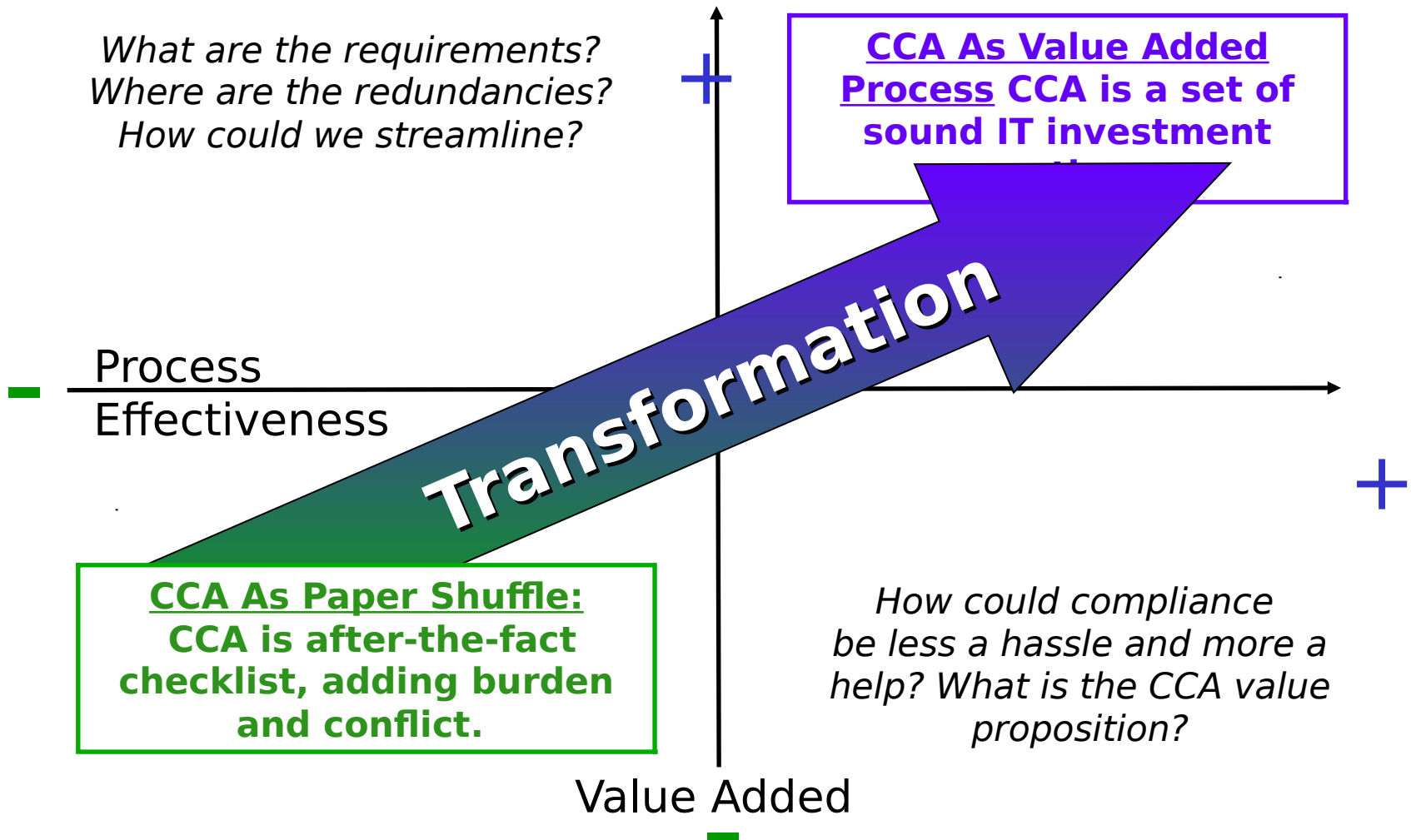
Use analytical framework to identify the range of perceptions about CCA.

Map how CCA elements interplay with one another & across the Acquisition Framework

Identify opportunities to reduce redundancies & streamline processes

Maintain ongoing dialogue with participants to provide feedback & next steps.

Analytical Framework: From Paper Shuffle TO Value Added Process



Using the Framework: Assessment Data Gathering

*Who or what can help
navigate between these
perspectives? How could we
bring needs and resources
closer together?*

CCA - Paper Shuffle:

**What is a story that illustrates
this perspective?**

**What are the lessons learned
that could be improved upon?**

**What does this group need to
move “up” the continuum?
When? From Whom?**

CCA - Value Added Process

**What is a story that illustrates
this perspective?**

**What are the best practices
from
this perspective?**

**What can this group do to pull
others “up” the continuum?
When? With Whom?**

*How can policy level
initiatives be better
leveraged at the program
level? How could information
be better shared?*

Assessment Data Gathering: CCA and the DoD 5000 Series

***Assessment Exercise:
Rank these 11 items in
order of importance in
contributing to CCA goals...***

- Supports core priority functions.
- Existing source can't support function.
- Process Redesign: reduces cost, increases effectiveness, and maximizes COTS.
- Analysis of Alternatives (AOA)
- Economic Analysis (EA) complete.
- Performance measures linked to strategy.
- Program progress measures & accountability.
- Consistent with the Global Information Grid (GIG)
- Information Assurance (IA) strategy.
- Modular, incremental contracting.
- System has been registered.

- An additional assessment data gathering tool was the DoD 5000 table outlining required elements for CCA compliance.
- Participants were asked to first rank the items individually – in order of importance in reaching CCA goals - and then reach consensus on the ranking within their group.
- The ranking exercise was used to gather detailed perceptions about the current implementation and perceived value of CCA across a range of organizations.

Moving from Complexity to Action: From Assessment to Meaningful Change

Assessment Recommendations:

The assessment was designed to evoke tangible recommendations that specific organizations can take across the IT investment life cycle to move either self or someone else along the CCA Transformation continuum...

PEOPLE (MAPPING THE PLAYERS)

- Put a face on CCA: Identify representatives at different points on the CCA continuum, and map their perceptions and interaction across the CCA path and systems life cycle.
- Examples: Program Manager (PM), CIO Representative...

ACTIVITY (IDENTIFYING QUICK WINS)

- Identify “Case Studies” vital to the success of CCA and other initiatives. Trace activity along the CCA and system life cycle. Where are redundancies and links with CCA?
- Examples: Information Assurance, Process Redesign

TRANSFER (WHAT, WHO, WHEN & HOW?)

- Who needs to know about what, and how will they know? What structures and tools could better integrate CCA vertically and horizontally? How do we better share existing information, rather than creating new versions for others?

Table Of Contents

Executive Summary

I. Introduction and Methodology

II. Key Findings

III. Recommended Solutions

IV. Conclusion

V. Appendices

Key Findings Summary: Goals, Roles, Process & Knowledge

Finding Category	Overview Statement of Finding
Issue #1: CCA Goals and Context	• A wide range of DoD IT investment and management guidance and other management initiatives complicate policy implementation. This leads to confusion about CCA goals and uneven accomplishment of objectives. • At the policy level, CCA is seen as the cornerstone of Net-Centricity; at the program level, it is seen as a burdensome compliance issue.
Issue #2: Role Definition	• Multiple organizations play roles in ensuring effective IT management. Roles and responsibilities across players are unclear and redundant. • The DoD CIO both advises on IT policy issues, and oversees program compliance with IT needs. Component CIO's carry out IT policy and oversight roles and responsibilities differently. • Currently, PM's are often responsible for milestone documentation of decisions made during pre-program activities – decisions made before PM is on board.
Issue #3: Timing and Process	• Timing drives the perceived effectiveness of CCA – many see CCA milestone compliance as “after-the-fact” compliance rather than useful management tool. • In some instances, CCA requirements have been layered upon, rather than interwoven with, existing processes and documentation.
Issue #4: Knowledge Management	• Ineffective communication and training aggravate the perception of CCA redundancies. • There is no consistent understanding of expectations related to CCA

Issue #1: CCA Goals and Context Findings Overview

The intent of CCA was to require better business practices in IT investments. Today, DoD executive decision processes have improved IT business practices, and emerging guidance on technical issues has clarified IT objectives. Despite these successes, a wide range of guidance and other management initiatives complicate the environment, leading to confusion about CCA goals and uneven accomplishment of its objectives.

Participant Quotes About CCA Goals - From the Policy Perspective...

“CCA helps focus everyone on the same goal, and increases accountability and sound investments by placing IT decisions in the context of business planning.”

“CCA brings discipline and global perspective to individual investment & review processes, highlights metrics/ROI, & raises business concerns to leaders.”

“CCA helps prevent failures leading to war-fighter risk (integration, data sharing, and communication failures) - the goal should be to support Joint needs for interoperable systems.”

Related Findings

- Assessment participants saw CCA from different contexts, impacting their perceptions about CCA goals.
- When CCA is considered in a **policy context**, it is a cornerstone for Net-Centricity, Joint Transformation and similar IT initiatives – placing IT decisions in the context of broader enterprise planning.
- When CCA is considered within a **program-level context**, the goal is perceived as ensuring compliance, with differing views as to what this compliance requires, and a lack of understanding of its value.
- The value proposition for CCA implementation is often unclear, leading to a lack of clarity about how CCA should be applied at the program level.

Issue #1: CCA Goals and Context

The Original Intent of CCA

- **Congress had two major objectives in passing CCA:**
 - Institute reforms to Department and Agency management practices to make IT resource management better conform to best business practices
 - Establish CIO as focal point for IT policies.
- **For DoD, introducing CCA was impacted by several dynamics:**
 - The layering of responsibilities within DoD automatically produces coordination and overlap issues. Since CCA was signed, Component CIO's have adopted additional processes, in some instances creating added burden.
 - At the time CCA was introduced, DoD already had formal and structured management and investment systems in place, including PPBS and Acquisition life cycle management. As such, CCA policy makers faced the challenge of injecting new CCA requirements within that established infrastructure.
 - DoD buys and operates a wide range of IT systems - including both National Security and Business Systems - with different decision processes and criteria.
- DoD chose to integrate the CCA compliance requirements into the established Acquisition process, rather than establishing a new and separate process. To do this, eleven major requirements were identified to meet the CCA objectives, and were subsequently incorporated into the DoD 5000 Series.

Issue #1: CCA Goals and Context

Perceived Goals and Outcomes

- **What was the original intent of CCA?** CCA, as written, outlines a wide range of responsibilities and activities that contribute to sound enterprise IT investment decisions. Today, however, many report a lack of understanding of how the CCA law and intent is achieved through current requirements, which focus primarily on the steps of compliance.
- **How do you know what the goals are?** Many study participants referred to the DoD 5000 CCA Compliance table as the source of CCA-related goals. This list summarizes CCA requirements for compliance at milestones of the Acquisition Framework, and as such, reflects a program-level focus on investments, not Capability or Portfolio approaches.
- **What outcomes are achieved by CCA compliance?** There is disagreement as to whether programs are ever stopped due to CCA – even when certification to Congress is required. Some report that programs have been halted or delayed because of IT issues, but not under the “name” of CCA. As a result, many Acquisition professionals perceive actual CCA compliance as a low priority, with redundant documentation and inputs.
- **What is the future?** With a balanced focus on program compliance within a broader policy context, CCA can be an important element in transforming DoD IT processes, streamlining enterprise-level IT efforts in a Net-Centric environment, and using CCA implementation to better integrate information technology with Acquisition from concept to sustainment – across programs.

Issue #1: CCA Goals and Context

CCA Applies to All IT Systems

Although CCA applies to all IT systems, assessment participants reported a lack of shared understanding about how CCA applies to different types of systems. Who decides CCA applicability, when, and how it will be applied?

MAIS/Non-MAIS

Congress requires certification of Major Automated Information Systems (MAIS) – both NSS and business. This requirement has been reasserted in the 2005 National Defense Authorization Act (NDAA).

However:

Many reported, “if you aren’t a MAIS Program, you fly below the CCA radar.”

Others noted, “That’s because many programs fail to self-identify as MAIS.”

Participant Quote: “Where is CCA really critical? At what level? Do we focus on the code itself, at the platform level, or only systems that must integrate with others? As embedded IT becomes more and more the norm, clarity about CCA goals and how they apply is more and more critical.”

National Security Systems (NSS)

CCA applies to NSS to the “maximum extent practicable” – however, participants indicated a lack of clarity about what “practicability” means. Specific goals and application of CCA for weapons and embedded IT systems reported as contentious. What are the procedures and criteria for trading-off IT elements against other NSS and weapons systems (WS) elements? How do CCA elements apply when IT is embedded in another system? Perceptions do not agree with guidance.

CCA applicability to NSS impacts CCA Decisions Related to:

Weapons Systems, Embedded IT, Others
Business Systems

Many agree that CCA is important for business systems, but posed questions about how CCA applies to legacy system upgrades or COTS integrations. How will CCA be managed in context of new Defense Business Modernization?

Issue #1: CCA Goals and Context

There Is Confusion About System Definitions & CCA

Study participants report confusion about system classifications and CCA requirements.

IT System Type	Comment
National Security Systems (NSS)	Includes Weapons, Intelligence and battlefield systems. CCA applies to “the extent practicable” to these systems. CCA certification to Congress is required for MAIS programs. Non-MAIS but Mission Critical and Mission Essential programs must be “confirmed CCA compliant” through the Component CIO.
Weapons Systems (WS)	As a subset of NSS, weapons systems must comply with CCA, however, the DoD 5000 CCA Compliance table notes that 3 of the 11 CCA requirements are “presumed satisfied for WS with embedded IT and for Command/Control that is not IT.” The meaning of this distinction was not well understood by study participants, and there may be varying implementations of this.
Embedded IT Systems	CCA did not define embedded IT, however the DAU Glossary notes the primary function of “embedded computer resources” is <i>to support weapon systems</i> . This leaves unanswered questions about CCA – e.g., chips in an aircraft: does CCA apply to the chip or entire aircraft?
Major Automated information Systems (MAIS)	Classification of systems as a MAIS is driven by a dollar threshold. MAIS can be a NSS or a business system. Statute requires certification by each Component CIO, with a subsequent review by DoD CIO for Congressional Certification.
Mission Essential & Mission Critical	Defined as essential or critical to warfighter as designated by Component (DODI 4630). Requires Component CIO confirmation to proceed to milestone (plus DoD certification if MAIS).
Business Systems	NDA 2005, which outlines requirements for business systems in addition to CCA, defines business systems as “financial systems, mixed systems, financial data feeder systems, and information technology and information assurance infrastructure, used to support business activities, such as Acquisition, financial management, logistics, strategic planning and budgeting, installations and

Issue #1: CCA Goals and Context NSS Versus Business Systems

Given the clear break in function between NSS and Business Systems, the following table outlines the differences between them against the CCA elements listed in the DoD 5000.

CCA Element	NSS/Weapons Systems	Business Systems
1. Supports core priority functions	If a proposed IT investment is approved by the Joint Requirements Oversight Council (JROC) through the Joint Capabilities Integration & Development System (JCIDS) process, it is presumed to meet this core function requirement (warfighting). This requirement is satisfied in the Initial Capabilities Document (ICD), typically before Program Manager (PM) is appointed.	Participants reported that the requirements validation owner and process for business systems is less clear: Domain Owners and JCIDS were cited by study participants as leads for defining core priority functions and requirements. The Business System Modernization requirements proposed in the 2005 NDAA targets this issue - alignment between CCA and this requirement will be determined.
2. No Alternative Source Can Better Support	Addressed in AOA and Acquisition Strategy, and is reported as not a serious concern for NSS and WS. DoD 5000 reports CCA requirement as "presumed satisfied for WS with embedded IT."	Many note that determination of an alternative source should be a Domain Owner responsibility, but participants report confusion as to where this occurs in the business system Acquisition process. Normally, PM is held accountable for explaining this determination at the milestone.
3. Process Redesign	The JCIDS process leading to ICD approval will examine the elements of Doctrine, Organization, Training, Material, Leadership, Personnel & Facilities (DOTMLPF) before approving a materiel solution. Assessment	Participants noted that the current lack of role clarity in the front-end of the business system acquisition process may result in "broken processes being automated." Normally, it falls on the PM to report on this CCA requirement at the milestone.

Issue #1: CCA Goals and Context

NSS Versus Business Systems

CCA Element	NSS/Weapons Systems	Business Systems
4. AOA complete	There are two types of AOA: one required during the JCIDS process, and one during initial solution definition. There is little information about the quality of these analyses.	Milestone A packages are only occasionally seen by DoD CIO. Several study participants noted that field programs falling “under the radar” may not complete this documentation until after technology selection. AOA’s may be inadequate if performance measures and link to mission have not been adequately defined.
5. Economic Analysis complete	ROI for weapons investments is difficult to estimate, as military advantage is hard to quantify.	Focus groups cited this as a “redundant CCA requirement.” An economic analysis is required for the Acquisition process, and economic data are used for the OMB 300 – some of these data needs may overlap. Focus groups indicated that some Component CIO’s require additional summary documentation for CCA compliance purposes (Army AIM system cited as an example).
6. Performance measures linked to strategy.	Initial Capabilities Document (ICD) and Capability Development Document (CDD) establish performance measures during the JCIDS process, based on the capability gap analyses. PM often held accountable for describing at the milestone.	Participants noted that Domain Owners and JCIDS should have the lead for setting these measures, but also noted that performance measures for business systems are not always well defined or understood. PM often held accountable for describing at the milestone.
7. Program progress measures and accountability	The Acquisition strategy establishes contracting performance measures, as opposed to performance measures	Same as NSS

Issue #1: CCA Goals and Context

NSS Versus Business Systems

CCA Element	NSS/Weapons Systems	Business Systems
8. Consistent with the GIG.	JCIDS process and J-6 play a key role in ensuring GIG compatibility and interoperability for systems during concept and capability definition phase. NII involved throughout development life cycle.	Study participants reported that, given the vast array of conceptual resources related to the GIG and Net-Centricity, demonstrating CCA compliance with the GIG is among the most vague of CCA requirements. Component CIO's have different requirements for assessing GIG compliance.
9. Information Assurance strategy complete.	JCIDS process and J-6 play a key role in ensuring IA and interoperability for systems during concept and capability definition phase. NII involved throughout development life cycle.	Focus groups often cited Component CIO questions related to IA Strategy for CCA compliance purposes as redundant, given the prominent role of NII and the DoD CIO in IA, via the Defense-wide Information Assurance Program (DIAP). Many reported a lack of clarity as to how NII and Component CIO roles overlap at the field level. Participants also referred to DITSCAP certification as a key process that falls within this category, and which overlaps CCA requirements.
10. Modular, incremental contracting	Addressed in Acquisition strategy.	Addressed in Acquisition strategy.
11. System has been registered.	Study participants report that the IT Registry overlaps with multiple other registration databases used for other purposes, some with overlapping data fields.	Same as NSS. The new Business System Modernization provision in the 2005 NDAA specifically notes that it does not replace the registry requirements of 8083 (2005 CCA certification requirements).

Issue #1: CCA Goals and Context

CCA As Indicator of More Systemic Concerns

- Because of the broad reach of CCA, the implementation issues may point to deeper, systemic issues in DoD requirements, Acquisition and budgeting processes.
- Selected interviewees suggested that current Acquisition processes may currently be more effective for NSS/Weapons programs than for business systems.
- Some participants suggested that many business programs start below the Acquisition radar, funded from non-specific O&M funds, and often without the detailed requirements analysis required by statute and regulation.
 - It was suggested that the new Business System Modernization architecture process, clarified Domain Owner roles and authorities, and Portfolio Management implementation may aid this situation. OMB Exhibit 300's have also been helpful in identifying candidate MAIS programs.
- Study participants suggested that CCA compliance could be further streamlined by:
 - Establishing standard automated data bases and tools for reporting the prior analyses without requiring duplicative effort of PM's or reviewers.
 - Encouraging Component CIO involvement in program activities through established collaborative processes, not post hoc prior to a signature milestone.

Issue #2: Role Definition

Findings Overview

The DoD CIO has responsibility for both advising on IT issues at the policy level, and overseeing program implementation and compliance with CCA/IT needs. Components CIO's define and carry out IT policy and oversight roles and responsibilities differently.

Participant Quotes About Roles...

"Some items on the CCA compliance list are more important because CIO plays key role completing them (e.g., IA, GIG). The others would get done by someone else anyway."

"Asking the PM to do CCA compliance for the CIO at a later milestone makes it a 'paperwork exercise' by default, because it is not the PM's job to do some things CCA requires. BPR, for example, happens long before the PM is assigned, and if an 'alternative source' was selected, there would never be a PM."

"CIO's push CCA certification through, because as IT advocates, it is in their best interest to do so. There is too much focus on technology, not on the business driving it."

Related Findings:

- Both DoD and Component CIO's play two roles: developing and issuing policy and guidance, and performing CCA and other IT oversight activities.
- Study participants report a "role divide" between actions taken as part of program implementation (e.g., NII supporting an IA strategy) and the later Component CIO oversight activity to confirm CCA compliance.
- CCA compliance reviews by Component CIO are perceived as "after-the-fact" because many CCA-related decisions are made early in the life cycle, before the PM comes on board, and before the CCA compliance milestone.
- Multiple organizations play roles in ensuring effective IT management. These roles all connect with CCA goals and requirements, but are not always under the "CCA Banner."

Issue #2: Role Definition Who is Responsible for CCA?

This chart provides just an example of the broad number of the players involved in activities related to CCA implementation. Many of these activities also play out at both the OSD and Component levels. While leading to role confusion, this also leads to multiple leverage points for improving CCA implementation.

	Comptroller	JCIDS/ JROC	J-6	AT&L	DoD CIO/NII	Domain Owners	PA&E
Policy	X	X	X	X	X	X	X
Compliance	X		X	X	X		X
Budgeting	X					X	
Requirements/ Capability	X (Financial Systems)	X	X	X	X	X	
Implementation/ Acquisition				X			
Architectures	X		X		X		

**Multiple Organizations Having a Stake in IT Management Play
Different Roles.
All Connect to CCA Goals and Requirements, but not under the CCA
Name.**

Issue #2: Role Definition

Roles Drive Perception at Different Levels

The differences in focus between the ATL/SAE community and the CIO community are further marked by the priorities separating OSD from the Components.

	ATL/SAE/CAE	CIO
OSD	Perceived priority is protecting integrity of transformed Acquisition process, and ensuring program delivery to the warfighter	Priorities reflect a dual focus on: (1) broad policy development (IA, GIG) and (2) CCA certification for MAIS programs and DAB reviews for Weapons systems.
Components	Perceived priorities are delivering delivery of systems to the warfighter on time and within budget. PM's are primary Points of Contact for completing the DoD 5000 CCA Compliance table for Component CIO review.	Component CIO's are closest to programs, but study participants claimed they do not add value through CCA compliance checks. Participants noted it is common for CIO's to just push packages through or send back to Field for "editing exercises." Component CIO's also set Component level IT policy and architectures.
Component Case Study: The DFAS CIO Perspective. The DFAS Focus Group involved both the CIO Office, and the Component Acquisition Executive. The DFAS governance model reflects a high involvement of the CIO in business decisions, including a seat on the Agency's Executive Committee. The DFAS CIO has signature authority for all IT investments above a set threshold.		

Issue #2: Role Definition

Roles Drive Perceptions

Generally, **study participant perceptions** about CCA's value reflected the roles they most closely identified with: **program level role** or **policy level role**.

CCA Perceived As Paper Shuffle

- The closer the person identified with **field level and program realities**, the more likely he or she selected into this group.
- Stories of this perspective often focus on the reporting burden and after-the-fact nature of CCA compliance.
- In general, perspectives here represent those of people in roles that **provide data** up the chain of command to support CCA compliance.

CCA Perceived As Value-Added

- The closer the person identified with the **IT policy** perspective, the more likely he or she selected into this group.
- Stories of this perspective often focus on the importance of systems inter-operability and IT investment control.
- In general, perspectives here represent those people in roles that **request and review data** from the field to support CCA compliance.

Component Case Study: The Air Force CIO Perspective. Air Force CIO representatives reported having a strong interest in removing the “paper shuffle” aspect of CCA compliance, and appear to identify and empathize with the needs and interests of the Acquisition community and PM's. CIO and Acquisition leaders conducted joint meetings with our study team to share CCA perceptions. The Air Force reports that they have established Acquisition Centers of Excellence to support technical decision-making at the PM level.

Issue #3: CCA Timing and Process Findings Overview

CCA is addressed in a broad range of IT investment and management processes, many embedded as checklists within the Acquisition process itself. In some instances, CCA requirements have layered upon, rather than interwoven with, existing processes and documentation.

Quotes About CCA Process...

“CCA compliance paperwork is just another copy of what someone else needed – a new format for a new player after the key decisions.”

“It is virtually impossible to align reporting requirements with each other. For example, the Acquisition milestone almost never coincides with the budget cycle reports – so the economic analyses never align. The books never match.”

“Critical programs are never stopped over CCA, and non-critical programs are ignored – CIO’s always help push CCA approval through, so why invest the energy?”

Related Findings:

- Many CCA requirements are not uniquely IT-related, and actually result from pre-program activities. As such, some CCA-related items are done before PM or CIO becomes involved. PM is often left to justify pre-program decisions when the milestone is reached.
- At the program level, CCA is perceived as appended to other processes – as such, it hard to tell where it starts and ends against other requirements. Because of this perceived overlap, compliance and certification are considered burdensome rather than valuable to the development process.
- CCA compliance requirements follow rather than lead the Acquisition life cycle. As such, although many requirements – such as IA and GIG compliance - are reflected in existing life cycle deliverables, the Component CIO review is not until the milestone, when it is perceived as both too late and redundant.

Issue #3: CCA Timing and Process

Questions About CCA at Program Level

*Stakeholders at both ends of the Transformation continuum, both **program level (Acquisition perspective)** and **policy level (CIO perspective)** are left with critical questions concerning CCA compliance or transformation.*

Program/Acquisition Questions...

- Aren't CCA items just good Acquisition and management practice that would be done without CCA? Why the added burden for PM's?
- Why aren't current CCA processes repeatable, measurable, scaleable, or linked to mission and desired outcomes?

IT Policy/CIO Questions...

- If CCA items are just good practice and are already done anyway, why is it such a burden to complete the compliance requirements at the milestones?
- What specific CCA compliance criteria and guidance drive that perception? What prevents CCA from being scaleable or linked to

Participant Quote from the Program Level: "New requirements never seem to *replace* old ones – they just always seem to layer on. We need to fix that, because we are just drowning in all this paperwork, and it slows us from getting the warfighter what he needs!"

Issue #3: CCA Timing and Process

Answering the Questions

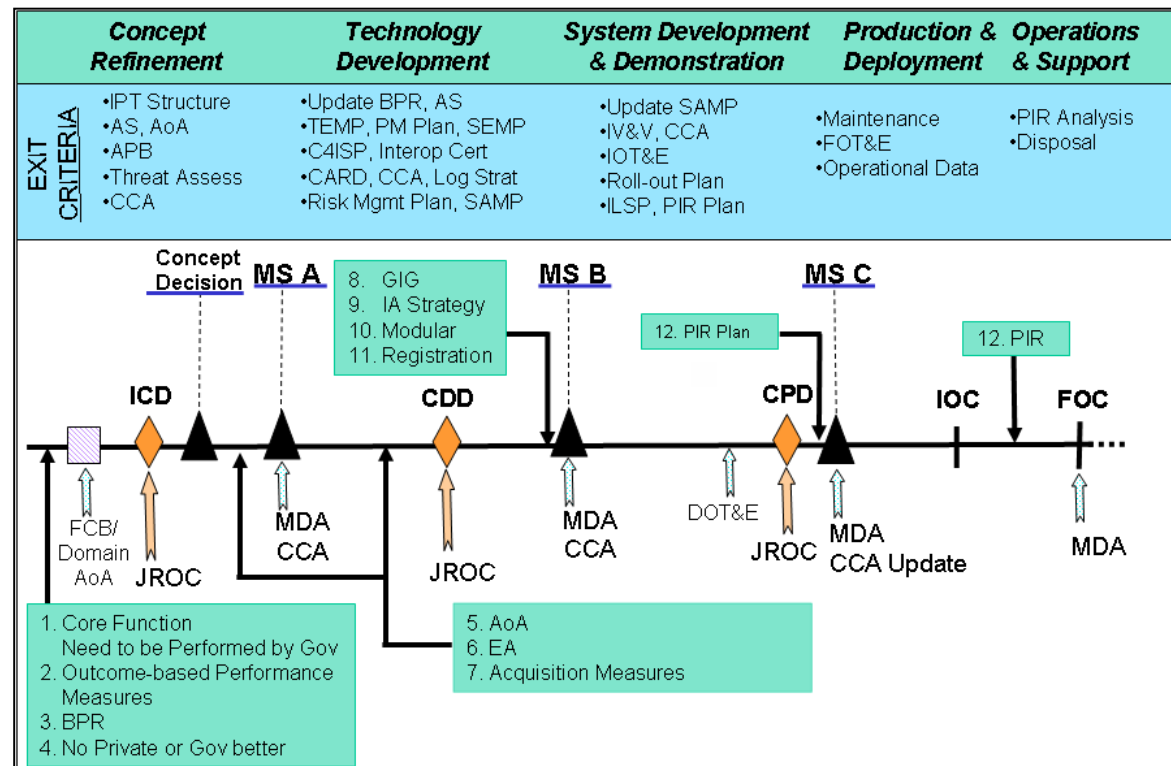
- **Burdensome Reporting of CCA.** Component CIO's have generally implemented processes specific to their organizations to track CCA compliance, beyond the specific instructions in the DoD 5000 table and Section 8083 CCA certification requirements. During focus groups, some people realized that the requirements and redundancies they are complaining about may be self-imposed.
- **Criteria for CCA Compliance.** There is a widespread lack of clarity about what is sufficient or "good enough" for CCA compliance, particularly because many believe that programs are never stopped over CCA – as such, there is no clear "minimum threshold for compliance." Quote: "We continue to say that '*they*' require all these things – but who are '*they*?' We may be creating work for ourselves just to ensure we are covered."
- **Contracting out CCA.** Several participants noted that CCA compliance documentation is often contracted out to someone with CCA experience. Quote: "It's on the list to do, so when we get to that milestone point, I call up

Component Case Study: The NAVAIR Program. NAVAIR currently advertises a Center of Excellence led by the CIO specifically focused on CCA. Established in April 2004, NAVAIR reports that the center is staffed with Subject Matter Experts who will answer questions on the policy, procedures, and requirements of each of the 11 Clinger-Cohen Act package elements, including IA.

Issue #3: CCA Timing and Process Across the Acquisition Framework

Timing drives the perceived effectiveness of CCA. Currently, CCA compliance checks at the milestone results in CCA being seen as “after-the-fact checklist” rather than as useful decision driver. The figure below represents just one depiction of how CCA elements should conceptually align with the Acquisition milestones, however, it may not align with current practice. An ongoing initiative called AM-45 will further articulate the ideal timing and sequence of events in the Acquisition life cycle.

Perceived redundancies between CCA and other requirements are explored on the following slides.



Source: CCA Community of Practice (<http://acc.dau.mil>) - “JCIDS & Acquisition Process”

Issue #3: CCA Timing and Process

Listing the Overlaps

CCA Element	Other or Overlapping Requirements	Most Often Cited Drivers
1. Supports core priority functions	JCIDS/JROC reports addressing this question in the capability phase by establishing the linkage between the mission, the function supported, the capability gap and potential solutions. The result is documented in the Initial Capabilities Document (ICD) and the Capability Development Document (CDD). The OMB Exhibit 300 also requires a description of how the program aligns with agency mission for each budget submission.	Directly related to the JCIDS/JROC process, as outlined in the CJCS 3170 Series. Also required in the OMB Exhibit 300.
2. No Alternative Source Can Better Support the Function	The Acquisition Guidebook suggests that this requirement is satisfied if the Program has an MDA approved Acquisition Strategy – it is unclear from focus groups that this equivalency is recognized in practice. For example, the Army’s AIM system does not reference the term “Acquisition Strategy” in Section 2 of its questionnaire (addressing this issue), and requires a response to related questions at the first three milestones.	DoD 5000 Series
3. Process Redesign: reduces cost, increases effectiveness, and maximizes commercial technology.	According to focus groups, this is the most vague and least understood CCA requirement. The Acquisition Guidebook states that BPR is conducted <i>before</i> program enters the Acquisition process unless there is a heavy COTS component (as advocated by CCA), however, the JCIDS process in the Guidebook does not specifically discuss BPR. BPR is assumed complete for weapons and embedded IT systems, according to DoD 5000. Study participants cite the Domain Owner as having most responsibility for BPR. A study interviewee noted that the “hand-off” between JCIDS and Acquisition community is not always smoothly defined – it may be that BPR has fallen into this gap.	DoD 5000 Series

Issue #3: CCA Timing and Process

Listing the Overlaps

CCA Element	Other or Overlapping Requirements	Most Often Cited Drivers
4. AOA complete	There are two types of AOA: (1) as a Domain/JCIDS responsibility during concept definition, and (2) as an Acquisition step during concept refinement. Involved communities include: JCIDS, Domains, and PA&E.	Directly related to JCIDS/JROC process, as outlined in the CJCS 3170 Series. Also required for OMB Exhibit 300.
5. Economic Analysis complete	The most common redundancy cited during study was the DoD PPBS process, culminating in the OMB Exhibit 300 (budget exhibit requires ROI, life cycle costs, and cost-benefit analysis data on an annual basis). The difference between an EA and the OMB 300 does not appear to be well-understood.	DoD PPBS Process, OMB Exhibit 300.
6. Performance measures linked to strategy.	JCIDS capability phase determines key performance parameters for the capabilities described for the system. Performance measures description is also required as part of the OMB Exhibit 300 under "Performance Goals."	Outlined in CJCS 3170 Series. Performance metrics are documented in the CDD, and are required for OMB 300.
7. Program progress measures	Directly tied to Acquisition Program Baseline (APB) and Acquisition strategy. OMB 300 requires a description of the Acquisition strategy, to include program progress measures.	DoD 5000 Series, OMB 300.
8. Consistent with the GIG.	Participants reported many diverse definitions of what the "GIG" refers to (strategy, architecture, vision, interoperability strategy, Net-Ready KPP), and cited many possible redundancies and overlaps that could be interpreted from this CCA requirement. In addition, multiple organizations and vehicles are being used to help	Most commonly cited overlaps: Net-Ready KPP, Interoperability requirements (DoD 4360), CJCS 3170 Series, OMB Exhibit 300 section

Issue #3: CCA Timing and Process

Listing the Overlaps

CCA Element	Other or Overlapping Requirements	Most Often Cited Drivers
9. Information Assurance strategy complete.	Defense-wide Information Assurance Program (DIAP) was called a “key lead” – alignment/overlap with Component CIO review for CCA beyond Series 8500 is unclear – 8500 does note overlap and divergence with CCA based on program type and size. Additional IA requirement cited as related/redundant with CCA: DoD Information Technology Security Certification And Accreditation Process (DITSCAP)	DoD 8500 Series, DITSCAP requirements
10. Modular, incremental contracting used	Both the DoD 5000 and the OMB 300 require an Acquisition Strategy as part of the system justification.	OMB Exhibit 300 requirements, DoD 5000 Series
11. System has been registered.	Updates to the IT Registry are required on a quarterly basis. Participants reported that this is redundant, as there are multiple registration databases, each with a different owner and different data requirements. These include: the OMB 300 Capital Investment Report, the ITMA registry, the BMMP registry, and other domain-specific registries.	Multiple. It was reported that registries are common vehicles for documenting regulatory compliance – as such, for many initiatives/regulations, there is a registry.
Component Case Study: The Navy CIO. One clear benefit to the Department of Navy’s NMCI initiative was the resulting inventory of systems (relates to Item 11 above). During the program’s implementation, many more “rogue” or “non-commissioned” systems were identified than previously anticipated. Due to rigorous policies and procedures with respect new development, the Navy now has a better idea of what is being developed at the field level, and can control those efforts more effectively.		

Issue #3: CCA Timing and Process

Case Studies of Redundancies

The previous charts reported many perceived redundancies between CCA and other requirements. Two specific examples were often referenced during the study:

OMB Exhibit 300 - Capital Asset Plan

Many participants cited overlap between the OMB Exhibit 300 (Capital Asset Plan and Business Case) and DoD 5000 CCA elements.

OMB lists CCA as one of many drivers underlying the Exhibit 300, and notes need for CIO concurrence with the 300 for IT programs. The OMB 300 is not referenced as an example of an “applicable document” on DoD’s CCA Compliance table.

The following OMB 300 sections appear to correlate with the DoD CCA Compliance table: Program alignment with both the Agency Mission and Enterprise Architecture; System Acquisition Strategy; Alternatives Analysis; Performance Goals; and Life Cycle Costs.

Some interviewees noted a fundamental difference in purpose between the OMB Exhibit 300 and the Economic Analysis – this difference appears unclear to many others.

The Exhibit 300 is tied to the federal budget cycle, not development milestones (as CCA is).

Information Assurance (IA) Strategy

IA is often reported as a positive case study of how IT has become a natural and embedded part of the Acquisition process – as such, additional CCA reviews were often cited as not necessary.

Participants reported the availability of IA experts at the field level as a key factor contributing to success. The Defense-wide Information Assurance Program (DIAP) was referred to as a key lead – overlap with Component CIO review function for CCA appeared unclear.

Component CIO CCA requirements for demonstrating an “IA Strategy” were cited as repetitive with the requirements of DoD 8500, with some disagreement as to when one may be required and the other not.

Some participants suggested DITSCAP could satisfy IA requirement without additional submissions.

Issue #3: CCA Timing and Process

Ranking the DoD 5000 CCA Elements

- Focus groups in the study were asked to rank the DoD 5000 CCA elements (see right) in “order of importance in meeting CCA goals.”
- No two groups ranked the list in the same order, showing a wide range of perceptions about both the goals and value of specific CCA requirements. **The following slides discuss these results further.**
- This exercise also revealed:
 - Specific cases of redundancies between CCA and other requirements.
 - Examples where the CIO is perceived to add specific value to the Acquisition process.
 - Specific examples of where the CIO’s perspective is not introduced until late in the process – leading to perceptions of repetitiveness, when it may just be a new look by a distinct source of expertise.

DoD 5000 CCA Compliance Table

CCA Milestone Priorities

1. Supports core priority functions
2. Existing source can’t support function.
3. Process Redesign: reduces cost, increases effectiveness, and maximizes COTS.
4. Analysis of Alternatives (AOA)
5. Economic Analysis complete.
6. Performance measures linked to strategy.
7. Program progress measures & accountability
8. Consistent with the GIG
9. Information Assurance strategy.
10. Modular, incremental contracting.
11. System has been registered.

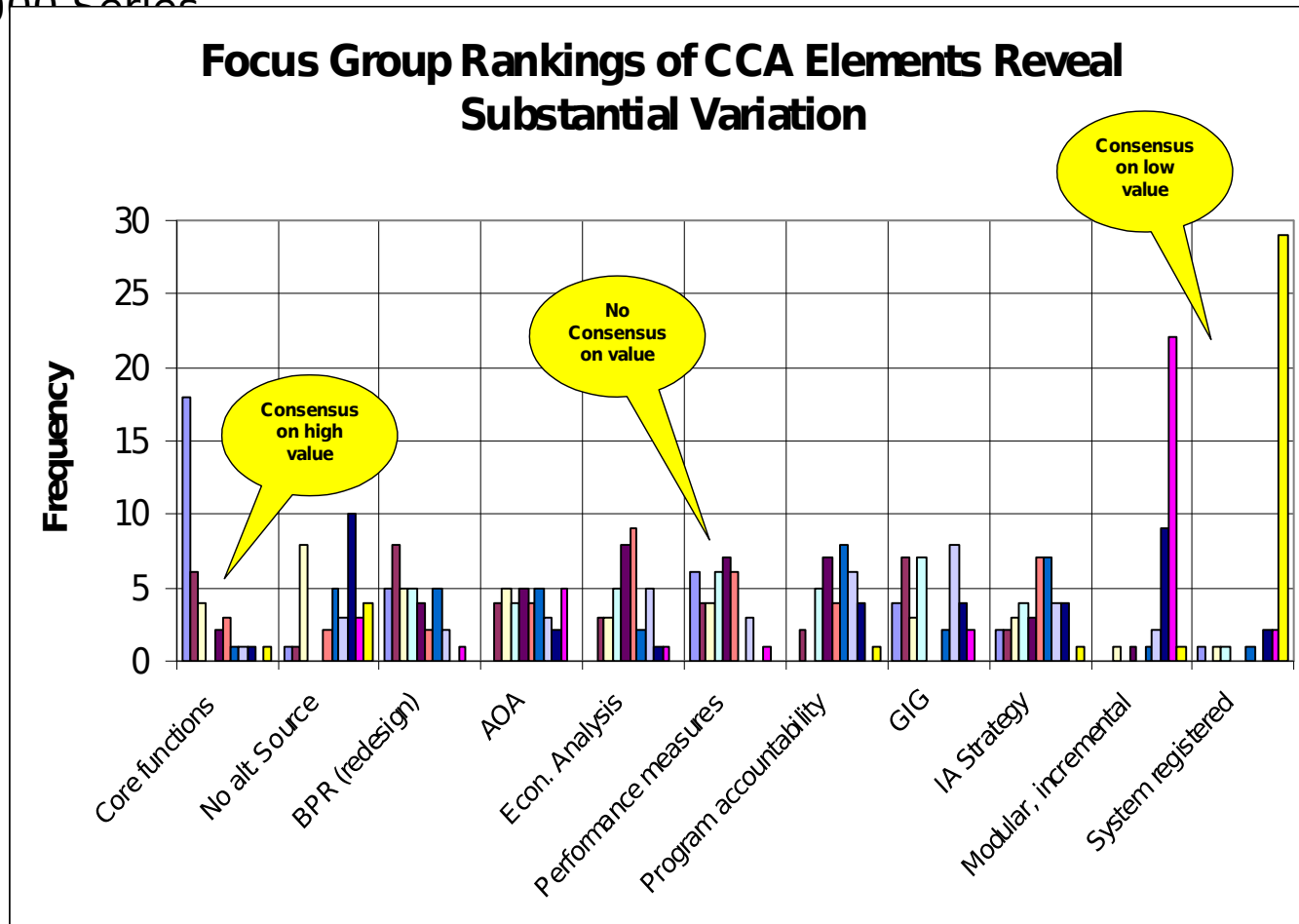
**Often ranked highest:
“Supports core functions.”**

**Often ranked lowest:
“System has been registered”**

Issue #3: CCA Timing and Process

Consensus About High & Low Value of CCA Elements

Focus groups generally agreed that “meets core functions” is a high priority in meeting CCA goals, and that “registering the system” is a lower priority. There was significant disagreement about the value of the other CCA elements listed in the DoD 5000 Series.



Issue #3: CCA Timing and Process

Ranking CCA Elements: Why Items are High or Low...

CCA Element	Arguments for Ranking HIGH in Importance ...	Arguments for Ranking LOW in Importance ...
1. Supports core priority functions – Often ranked as most important (#1)	This is the key question driving all investment decisions. If it doesn't support mission, you shouldn't proceed.	Program never gets to milestone (when this list is looked at) if its doesn't support goals. This decision is made before CIO/PM is involved.
2. Existing source can't support function – Often ranked as #3 or #9 (high or low).	A key up-front question is defining whether organization will even do the work – responsibility may be transferred to another.	Covered elsewhere: This is an implementation issue, and should be considered in generating Analysis of Alternatives, or in process redesign.
3. Process Redesign – Diverse rankings across groups.	Process redesign (BPR) needed before making other key decisions, including whether to invest or outsource.	Process redesign is not always required or desired – sometimes, the “As Is” is working well. Not all programs require redesign.
4 & 5. Analysis of Alternatives (AOA) & Economic Analysis – Often ranked together, in middle.	AOA and Economic Analysis should be done at every key decision point to formalize trade-off and risk analysis (includes outsourcing decision).	Both are redundant with other reporting (e.g., OMB 300), and are an after-the-fact formality for CCA. Lack of clarity about when done compared to other reports (milestone versus budget year timing).
6. Performance measures linked to strategy – Generally ranked between 2 and 8.	If you can't link performance measures to strategy, you should not do investment. Measures ensure accountability, and provide baseline for alternatives analysis.	Measures reside in the overarching strategy document and are not purely IT-related. Measures are for program overall, not the IT investment.

Issue #3: CCA Timing and Process

Ranking CCA Elements: Why Items are High or Low...

CCA Element	Arguments for Ranking HIGH in Importance ...	Arguments for Ranking LOW in Importance ...
7. Program progress measures/accountability - Generally ranked between 4 and 9.	You must monitor program progress to validate it as a sound investment - must have measures to know when to stop a program.	Covered by other areas. This is an implementation / program management issue, not an investment one.
8. Consistent with the GIG - Often ranked as #2 or #8 (high or low).	To achieve true Netcentricity and interoperability, everything must be driven by the GIG and standard architectures.	The GIG is too conceptual and high-level to be useful, or to drive investment decisions at the tactical system level.
9. Information Assurance (IA) strategy - Generally ranked between 4 and 9.	CIO's key role is ensuring that systems can generate and share data - IA is critical to this. IA often drives alternatives and cost.	If system is compliant with the GIG and has appropriate performance measures, this is covered elsewhere.
10. Modular, incremental contracting - Usually ranked #10.	Programs can fail because they are too big and aren't managed effectively. Modular contracting lowers investment risk.	This is an administrative/method issue - <i>how</i> you manage the implementation, not <i>whether</i> you invest or not.
11. System has been registered - Usually ranged last (#11). When not last, usually <i>highest</i> .	The only way to leverage DoD investments and ensure interoperability is to know what's out there. The registry ensures visibility of investments, and ultimately effective choices between programs at DoD level.	Registration is an after the fact formality that does not impact investment decisions. There aren't really consequences for not being registered, and no one uses the registry list anyway.

Issue #4: CCA Knowledge Management Findings Overview

Ineffective communication and training aggravates the redundancy perceived with CCA. There is no consistent understanding of expectations related to CCA compliance, from OSD down, and between Components.

Quotes About CCA Communication & Training...

- CIO Staff Member: "PM's don't really know what to do to make CCA effective at the field level."
- CIO Staff Member: "There are untrained and non-certified people in key roles in the field."
- DAU Student: "There is poor flow of requirements, guidance, a lack of feedback from OSD and the policy level."
- IRMC Student: "We need better access to guidance, tools, and intellectual capital to help with CCA requirements earlier."
- PEO Representative: "People are talking past each other, not with each other."

Related Findings:

- Because CCA requirements are generally applied at a program level rather than enterprise-wide, communication is limited to specifics about Acquisition checklists – excluding broader concerns about performance.
- More specific implementation guidance and job aids are needed to help clarify when, how often, and to what extent specific CCA items are required – but these need to point to real analyses that support transformed processes, not more checklists.
- Participants note that the current "As-Is" suffers from a communication deficit, that feedback up and down the chain of command is poor, and that there is a break between the Acquisition side and the CIO side. "There's a lot of paper – not a lot of real conversation."

Issue #4: CCA Knowledge Management Communication and Training

More examples of how Knowledge Management – including communication and training - is currently lacking with respect to CCA.

Knowledge & Communication

- Several participants noted the need for a central repository of final project documents, program architectures, and CCA reports. This would allow better sharing of data between systems that must ultimately interoperate.
- There is a common perception that CIO is not involved in the JCIDS process, and that the PM is often left to justify pre-program decisions at the milestone.
- CIO staff members often cite the GIG as an ongoing process to ensure integrated architectures and inter-operability over time. PM's report that the GIG is still too conceptual to be useful in making architectural choices in the field. These differences lead to conflict between the communities.

Training & Education

- DAU Program Management students report receiving high level overview of CCA in courses, but many did not know how it applies to their work, and had difficulty explaining its value. Those with CCA on-the-job experience were best able to discuss with other students.
- IRMC CIO Certificate classes appeared better informed as to the value and application of CCA, and appear to cover more extensively, given their IT emphasis.
- Responses were varied when asked, "Where would you go to learn about CCA?" Leading answers: DoD 5000 and Google. CCA Community of Practice was rarely cited as a resource, and many did not know about it.

Summary of Findings and Implications

Finding Category	Finding Summary	Implications for “To-Be” CCA Transformation
Issue #1: CCA Goals and Context	The intent of CCA was to require better business practices in IT Acquisition. Today, DoD executive decision processes have improved IT business practices, and emerging guidance on technical issues has clarified IT objectives. Despite these successes, a wide range of guidance and initiatives complicate the environment, leading to confusion about CCA goals and uneven accomplishment of its objectives.	Transformation solutions must clarify how CCA is to be applied differently for different types of systems. CCA goals must be aligned with other IT management policy initiatives and requirements to eliminate redundancies.
Issue #2: Role Definition	The DoD CIO has responsibility for both advising on IT issues at the policy level, and overseeing program implementation and compliance with CCA/IT needs. Component CIO’s define and carry out IT policy and oversight roles and responsibilities differently.	CIO roles and responsibilities with respect to IT management across the life cycle must be clearly defined across organizations, and reporting redundancies must be eliminated.
Issue #3: Timing and Process	CCA is addressed in a broad range of IT investment and management processes, many embedded as checklists within the Acquisition process itself. In some instances, CCA requirements have layered upon, rather than interwoven with, existing processes and documentation.	CCA requirements must be streamlined by identifying equivalencies and clarifying points of CCA authority, accountability, and activities.
Issue #4: Knowledge Management	Ineffective communication and training aggravates the redundancy perceived with CCA. There is no consistent understanding of expectations related to CCA compliance, from	CCA must be associated with specific performance measures to clarify expectations. Education and outreach must be improved to provide job aids

Table Of Contents

Executive Summary

I. Introduction and Methodology

II. Key Findings

III. Recommended Solutions

IV. Conclusion

V. Appendices

Key Findings Implications: Direction for Future Transformation

- This assessment concluded that DoD can create more effective and less burdensome IT investment management and oversight practices by changing how CCA and its associated context and requirements are understood, communicated and implemented.
- Proposed solutions from this study:
 - Examine the role of Congressional CCA certification requirements for MAIS in light of today's DoD IT investment management landscape.
 - Build upon established collaborative processes between Acquisition, CIO, and other key IT investment players.
 - Emphasize improved communication and training.
 - Recommend Net-Centric tools to streamline existing processes and reporting.
- The study also proposes articulating more clearly the value proposition of CCA implementation, to improve assessment and continuing process improvement.

Solutions Summary: Transforming CCA Implementation

Project recommendations fall into three general categories:

Recommendation Category	Related Solutions
Policy Coordination	• Leverage legislation, new policy, and draft guidance that involve or interweave CCA concerns. • Align with other IT management policy initiatives. • Target IT policy-level needs and IT capability definition and development.
Process Improvement	• Clarify CIO roles across levels and eliminate reporting redundancies. • Refocus Component CIO efforts from CCA compliance checks to active involvement across life cycle. • Clarify authorities and establish equivalencies for each key CCA element.
Communications Planning	• Provide realistic CCA functional job aids. • Define and clarify the value proposition of effective CCA implementation. • Improve CCA outreach across stovepipes.
MOVE FROM "After-the-Fact Oversight" to "In-Process Insight" & From Paper Shuffle to Value-Added Process	

Policy Coordination Solutions

CCA = Collaboration, Consensus & Advocacy

- **Leverage legislation, new policy, and draft guidance that involve or interweave CCA concerns to enhance IT investment processes.**
 - The 2005 NDAA: (1) Established new system and governance for Business System Modernization; and (2) Requires DoD to submit a report to Congress in June 2005 about redundancies with respect to CCA authority and embedded IT programs.
 - Revisions to both the CJCS 3170 and the DoD 5000 are currently available or will soon be released for comment.
 - Future opportunities to improve CCA implementation will develop as ongoing processes mature and are implemented.
- **Proposed CIO and SAE Actions:**
 - **Near-Term.** Seize opportunity provided by NDAA 2005 to build consensus and clarify objectives related to CCA and embedded IT for weapons systems. Generate required “Embedded IT - Report to Congress.”
 - **On-Going.** Mobilize CIO leadership as a proactive force in the Business System Modernization effort and into the JCIDS process. Help shape draft policy and guidance that aligns with CCA objectives. Eliminate redundancies and streamline requirements wherever possible.

Use momentum emerging from this study and the embedded IT debate as a basis for building consensus, clarifying objectives, and driving actionable change.

Policy Coordination Solutions

CCA = Coordinate Complementary Approaches

- **Align with other IT management policy initiatives.** Join high impact forums and initiatives aimed at coordinating IT management issues at the enterprise level. Align with these communities to continue to accomplish CCA goals at the policy level.
 - AM-45 - Part of the BIC initiative
 - Business Systems Investment Council - Cross-Functional
 - Enterprise Portfolio Management Board (EPMB) - Domain Owners
 - Net-Centric Process Improvement - NII Policy and Planning
 - Other initiatives requiring registries that overlap with CCA IT Registry
- **Proposed CIO Actions:**
 - **Near-Term.** Support the AM-45 initiative to establish and communicate the most effective timing, sequence, and ownership of CCA activities in the concept phase and early Program Office activities.
 - **On-Going.** Establish a leadership presence in high-impact initiatives and forums that inject and integrate CCA implementation into DoD Transformation efforts. Gain a stronger foothold with JCIDS, Domain Owners, Comptroller, and Acquisition community to translate CCA goals into active high-value practice.

Policy Coordination Solutions

CCA = Concentrate on Capability Achievement

- **Target IT policy-level needs and IT capability definition and development.**
 - Close current knowledge gaps related to business process reengineering (BPR) and performance measures, as study participants reported these as ill-defined and poorly understood.
 - Continue focusing on high impact systemic initiatives, such as Portfolio Management, system-wide IA, and Interoperability/GIG development, as well as completing system-by-system reviews of IA and architectures.
 - Apply CCA's statutory power to drive effective IT investment and management policy and practices into the Business System Modernization effort.
- **Proposed CIO/NII Actions:**
 - **Near-Term.** Work with the Community of Practice and CIO/AT&L communities to better define and understand BPR and performance measures – reframe as a joint concern to support the warfighter, rather than as a “CCA issue.”
 - **On-Going.** Coach JCIDS, Domain Owners, Comptroller, and Acquisition community in translating CCA elements such as BPR and performance measures into specific value-added practice, and then communicate these practices at the program level. Leverage Portfolio Management, Net-Centricity, and Business

Effective policy implementation is more than success across programs. Balance program-level compliance with broad policy perspectives – leading to effective programs and enterprise impacts.

Process Improvement Solutions

CCA = Clarify CIO Actions

- **Clarify CIO roles across levels. Eliminate reporting redundancies.**
 - Clearly define the roles, responsibilities, and expectations for each CIO level for CCA compliance, confirmation and certification across different types of systems.
 - Clarify and communicate the different roles played by CIO offices that wear “multiple hats.”
- **Refocus Component CIO efforts from Milestone CCA compliance checks to active involvement across life cycle.**
 - Identify Component CIO entry points in the IT investment life cycle and work with Acquisition leads to formalize CIO involvement early and consistently in program decisions or implementation, including: (1) “Go-No Go” decisions; (2) Establishing technical standards; (3) Advising programs on IT issues; and (4) Participating in decision meetings
 - Address the complaint that CIO’s have introduced redundant CCA reporting and reviews. Eliminate CCA reporting that repeats requirements (e.g., don’t ask for additional IA compliance information when the IA Strategy has been already approved by NII or others).
- **Proposed CIO Actions**
 - **Near-Term.** Convene a CIO Strategic Planning forum bringing Component CIO’s and OSD NII/CIO together to define specific CIO roles, compare CCA requirements, and remove reporting and oversight redundancies.
 - **On-Going.** Establish a subsequent forum with Acquisition community to clarify expectations and CCA reporting responsibilities.

Process Improvement Solutions

CCA = Consolidate Compliance Activities

- **Clarify authorities and establish equivalencies for each key CCA element throughout the IT investment life cycle, and across program types.**
 - Define and publicize authorities and responsibilities for implementing which CCA elements for which types of programs, at which milestones (e.g., JCIDS, Domain Owners, NII, PM's, etc).
 - Establish CCA “presumptive compliance,” and document these equivalencies within DoD Series documents (e.g., If Office ABC was involved with, or reviewed and approved Deliverable XYZ, program is presumed CCA compliant). Examples: CJCSI 3170, OMB Exhibit 300, Information Support Plan (ISP), DITSCAP, Net-Centric Checklist.
 - Mirror success seen with After Action Reports within DoD to better implement “evaluation phase” efforts through more effective Post-Implementation Reviews (PIR).
 - Collapse the 5000 Series CCA Compliance list into a shorter list of grouped items, to reflect lessons learned and streamline. Organize requirements by milestone and program-type.
- **Proposed Actions**
 - **Near-Term.** Work through AM-45 initiatives to establish equivalencies for CCA throughout streamlined Acquisition process. Amend Acquisition process documents to include references to equivalencies.
 - **On-Going.** Marshall Acquisition process owners to document CCA equivalencies across the IT investment life cycle.

Communications Planning Solutions

CCA = Clearly Communicate Applicability

- **Provide realistic functional CCA job aids.**

- Develop job aids that specifically map CCA compliance priorities to other initiatives and requirements, and describe overlap and equivalencies without adding more checklists.
- Reference CCA equivalencies throughout Acquisition Guidebook, and point to a summary laying out the practical application in a streamlined way.
- Provide scenarios for how CCA applies to systems where application is unclear: legacy upgrades and BPR; COTS implementation projects.
- Be tactical and specific (e.g., How is CCA applied to legacy upgrades/decisions? What about COTS?).

- **Proposed Actions**

- **On-Going.** Collaborate with JCIDS, Domain Owners, DoD Universities and Community of Practice to develop "Quick Guides" outlining CCA requirements, equivalencies for different types of programs from concept through the milestones, and advice for embedding CCA across Acquisition life cycle.

Best Practices from Study Participants:

"Reward the Right Behaviors. Be sure the benefits achieved from CCA are returned to the organization implementing successful practices."

"Make sure people with CCA competencies are actually aligned with jobs that need them."

"Award 'Blue Ribbons' for outstanding programs."

"Include CCA performance on employee assessments."

"Provide samples of 'best of breed' CCA procedures to support on-the-job learning. It's not a shortcut, just a start."

Communications Planning Solutions

CCA = Calculate Compliance Advantages

- **Define and clarify the value proposition of effective CCA implementation.** Establish the value proposition of CCA itself, so that CIO's and programs share a common understanding of the expectations and the criteria for success.
 - Quantify the benefits achieved because of CCA, and the costs of not implementing CCA effectively. Have programs been labeled "CCA compliant" and failed? How could that be prevented? What metrics relate best to CCA implementation success?
 - Issue CCA compliance metrics for trends over time to track progress at both OSD and Service level (programs rejected, modifications required, etc)
 - Streamline IT management reporting by building Net-Centric tools that generate standard reports built on common investment management information needs.
 - Document CCA value proposition in popular publications and websites.
- **Proposed CIO Actions**
 - **Near-Term.** Establish a CIO-driven work group to define the CCA value proposition and vet with organizations charged with CCA implementation.
 - **On-Going.** Use value proposition findings to identify streamlining opportunities and institutionalize throughout the IT investment life cycle. Leverage CIO leadership to streamline CCA implementation within Business System Modernization process.

Communications Planning Solutions

CCA = Constantly Communicate Assertively

- **Improve CCA outreach across stovepipes.**

- Reinforce CIO responsibility for communicating CCA requirements and effective IT policy and investment management practices across DoD, including JCIDS, Domain Owners, and Acquisition community.
- Lead the charge towards rapid development and deployment of GIG policy and standards. Continue to drive other IT initiatives towards Net-Centric Transformation – including core Enterprise Services. Communicate both progress and challenges to field level – and ask for their input in return.
- Assertively deliver IT policy, interpretation, CCA value proposition, and CCA job aids using existing DoD communication vehicles (e.g., websites, trade magazines, newsletters, training, etc).
- Identify and publicize existing resources that provide insights and training about CCA implementation, including the CCA Community of Practice and the Acquisition Guidebook.

- **Proposed Actions**

- **Near-Term.** Brief the results and recommendations of this study across DoD leadership and stakeholder groups. Develop a Communications Plan outlining strategies for communicating CCA and IT policy across DoD.

Solutions Summary: Near-Term and Ongoing Transformation

	Solutions...	Near-Term	Ongoing
POLICY	• Respond to legislation, new policy, and draft guidance that interweave with CCA. • Align with other IT management policy initiatives. • Target IT policy-level needs and IT capability definition and development.	• Use NDAA 2005 requirements to build consensus and clarify objectives related to CCA and embedded IT for weapons systems. • Generate required "Embedded IT - Report to Congress." • Support AM-45 initiative to establish the most effective timing, sequence, and ownership of CCA activities. • Work with the Community of Practice and CIO/AT&L communities to better define and understand BPR and performance measures.	• Mobilize CIO leadership as a proactive force to leverage CCA "lessons learned" in the Business System Modernization effort and into the JCIDS process. • Help shape draft policy and guidance that aligns with CCA objectives. • Establish leadership presence in high-impact initiatives (such as Portfolio Management, Net-Centricity, and Business System Modernization) to continue integrating effective IT management into DoD Transformation. • Coach JCIDS, Domain Owners, Comptroller, and Acquisition community in translating CCA goals into specific practice.
PROCESS	• Define CIO roles and eliminate redundancies. • Refocus Component CIO from CCA compliance to active life cycle involvement. • Clarify CCA authorities and establish equivalencies.	• Convene a CIO Strategic Planning forum bringing Component CIO's and OSD NII/CIO together to define CIO roles, compare requirements, and remove redundancies. • Work through AM-45 initiative to establish equivalencies for CCA throughout Acquisition process. • Amend process documents to include references to CCA equivalencies.	• Establish a forum with Acquisition community to clarify CCA expectations and responsibilities. • Marshall Acquisition process owners to document CCA equivalencies. • Collaborate with DoD Universities and Community of Practice to provide "CCA Quick Guides" outlining requirements, equivalencies, and advice for embedding CCA across the Acquisition life cycle.
COMM	• Provide realistic functional CCA job aids. • Clarify the value proposition of CCA implementation. • Improve CCA outreach across stovepipes.	• Brief the results of this study across DoD leadership and stakeholder groups. • Develop a Communications Plan with strategies for communicating about CCA. • Establish a CIO-driven work group to build CCA performance measures and vet with stakeholders.	• Clarify value proposition of CCA implementation, and use to streamline existing CCA reporting processes. • Leverage CIO leadership to streamline CCA implementation within Business System Modernization process.

Final As

		PROPOSED ACTIONS: FEB-JULY 2005	MAR	APR	MAY	JUNE	JULY	AUG
POLICY	Generate comments/updates to DoD Acquisition Guidebook			■				
	Map IT Investment Management Initiatives – Aligning Net-Centric IT Transformation Activities			■				
	Draft “CCA & Embedded IT” Report to Congress			■				
PROCESS	Complete CCA Lean Engineering Assessment (aka AM-45) for BPR & Performance Measures		■					
	Define and clarify CCA value proposition				■			
	Research Case Studies to understand current knowledge gaps (e.g., BPR and Perf. Measures)		■					
COMM	Develop Communications Plan				■			
	Conduct Briefings about Assessment Results							
	Plan/Host CCA Knowledge Fair II							
	Plan/Host Joint CIO-Acquisition CCA Conference							
	Final Assessment Report							

Solutions Summary: Specific Next Steps

- **Specific next steps to implement solutions:**

- Brief results and recommendations across DoD leadership and stakeholder groups, including leaders of related policy initiatives.
- Create a forum bringing CIO and Acquisition leaders together to discuss issues.
- Prepare the NDAA 2005 Response to Congress related to the roles and authorities of SAE's/CIO with embedded IT systems.
- Leverage AM-45 Acquisition streamlining effort.
- Develop a CCA Communications Plan for the upcoming 12-18 months, targeting proposed assessment solutions related to training and outreach.
- Develop Action Plan for other report recommendations, including planning CIO “CCA Roles” forum, identifying CCA equivalencies, and articulating CCA value proposition.

- **We recommend moving quickly to plan “CCA Knowledge Fair II” for May 2005.**

Quote from pre-brief reviewer: “These are good ideas. But, you know, too many reports end up just gathering dust. We will believe it when we see it— let’s hope there’s action soon.”

Table Of Contents

Executive Summary

I. Introduction and Methodology

II. Key Findings

III. Recommended Solutions

IV. Conclusion

V. Appendices

CCA Project Conclusion: Mapping Solutions to Goals

This project's objective was to lay the groundwork for strengthening IT effectiveness within the broader Acquisition process from concept to sustainment. The following slides map proposed solutions against the project's underlying goals. Action toward these solutions will bring DoD closer to these goals.

Goal #1: Strengthen CIO capability at all levels to encourage eventual delegation of CCA authority to Component CIO's and transform DoD CIO's leadership role into risk-based oversight, coaching and training.		
Solutions	Near-Term Actions	Ongoing Actions
Clarify CIO roles and eliminate redundancies. Refocus Component CIO from CCA compliance to active life cycle involvement. Provide realistic CCA functional job aids. Improve CCA outreach across stovepipes.	• Convene a CIO Strategic Planning forum bringing Component CIO's and OSD NII/CIO together to define CIO roles, compare requirements, and remove redundancies. • Develop a Communications Plan with strategies for communicating about CCA. • Use NDAA 2005 requirements to build consensus and clarify objectives related to CCA and embedded IT for weapons systems. • Generate required "Embedded IT - Report to Congress."	• Mobilize CIO leadership as a proactive force to leverage CCA "lessons learned" in the Business System Modernization effort and into the JCIDS process. • Collaborate with DoD Universities and Community of Practice to provide "CCA Quick Guides" outlining requirements, equivalencies, and advice for embedding CCA across the Acquisition life cycle.

CCA Project Conclusion: Mapping Solutions to Goals

Goal #2: Identify current CCA reporting requirements and processes, and seek ways to streamline and remove redundancies.

Solutions	Near-Term Actions	Ongoing Actions
Clarify CCA authorities and establish equivalencies.	• Work through AM-45 initiative to establish the most effective timing, sequence, and ownership of CCA activities; and then establish equivalencies for CCA throughout Acquisition process. • Amend Acquisition process documents to include references to CCA equivalencies.	• Establish a forum with Acquisition community to clarify CCA expectations and responsibilities. • Marshall Acquisition process owners to document CCA equivalencies.

Goal #3: Integrate CCA as a “transformation enabler” into Acquisition systems and processes from concept through sustainment.

Solutions	Near-Term Actions	Ongoing Actions
Clarify CCA value proposition. Improve CCA outreach across stovepipes. Help shape legislation, new policy, and draft guidance.	• Establish a CIO-driven work group to clarify CCA value proposition and vet with those charged with CCA compliance. • Coach JCIDS, Domain Owners, Comptroller, and Acquisition community in translating CCA goals into specific practice.	• Clarify value proposition of CCA implementation, and use to streamline existing CCA reporting processes. • Leverage CIO leadership to streamline CCA implementation within Business System Modernization process.

CCA Project Conclusion: Mapping Solutions to Goals

Goal #4: Align CCA implementation with other DoD transformation initiatives.		
Solutions	Near-Term Actions	Ongoing Actions
Align with other IT management policy initiatives. Target IT policy-level needs and IT capability definition and development.	• Work through AM-45 initiative to establish the most effective timing, sequence, and ownership of CCA activities; and then establish equivalencies for CCA throughout Acquisition process. • Work with the Community of Practice and CIO/AT&L communities to better define and understand BPR and performance measures.	• Establish leadership presence in high-impact initiatives (such as Portfolio Management, Net-Centricity, and Business System Modernization) to continue integrating effective CCA implementation into DoD Transformation.

CCA Project Conclusion - Summary and Next Steps Ahead

- The Study Team proposes three general categories of solutions to begin DoD CCA Transformation to the To-Be State:
 - Policy Coordination
 - Process Improvement
 - Communications Planning
- We recommend the following immediate steps to maintain momentum from this effort:
 - Brief the results of this study across DoD leadership and stakeholder groups.
 - Initiate planning for “CCA Knowledge Fair 2” for May 2005.
- **We conclude this report by thanking the more than 200 DoD participants involved in this study for their energy, insights and recommendations!**

The Path to Date & The Road Ahead

Assessment:

Learning the “As Is” Perceptions &
Defining the “To-Be” State



Reporting:

Focus on Sharing Perceptions &
Concurring on Next Steps



Dialogue & Delivery:

Initiating the implementation of
solutions identified by this effort in
the areas of policy coordination,
process improvement, and
communication

Table Of Contents

Executive Summary

I. Introduction and Methodology

II. Key Findings

III. Recommended Solutions

IV. Conclusion

V. Appendices

Appendices

- Acknowledgements
- Acronyms
- Key References
- Study Participant List

Acknowledgements

Study Sponsors and the Assessment Team thank the following individuals and organizations for their proactive leadership in supporting this effort:

	ROLE	NAME
MILDEP CIO's	CIO, Department of the Air Force	Mr. John M. Gilligan
	CIO, Department of the Army	LTG Steven W. Boutelle
	CIO, Department of the Navy	Mr. David M. Wennergren
Agency CIO's	CIO, DFAS	Ms. Audrey Y. Davis
	CIO, DISA	Ms. Shirley L. Fields
DoD Liaisons	National Defense University/IRMC	Dr. Carl Clavadetscher
	Army CIO, Deputy Dir. Policy & Governance	Ms. Arlene Dukanauskas
	Air Force CIO Office	Mr. John Gay
	DISA CIO, IRM Lead	Ms. Amelia Grazioso
	Department of Navy CIO Office	Ms. Judy McCarthy
	Dep. Director, Acquisition Oversight, OSD (NII)	Mr. David Mullins
	DFAS, ADD Systems Management Division	Ms. Judy Munger
	Joint Staff, J 6 DAG	LTC Timothy Petit
Study Sponsors	Principal Director, DCIO	Dr. Margaret Myers
	DCIO, Department of Defense	Ms. Priscilla Guthrie
	NII Commercial Policies & Oversight	Mr. Ray Boyd
	AT&L	Mr. Bob Nemetz

This assessment study was led by the following Principal Investigators:

Dr. Thomas Hickok, NII Commercial Policies & Oversight (CTR)	Thomas.Hickok.Ctr@osd.mil
Dr. Stuart Rakoff, AT&L (CTR)	srakoff@comcast.net
Mr. Hile Rutledge, OKA	hrutledge@typetalk.com
Miss Jennifer Tucker, Booz Allen Hamilton	Tucker_Jennifer@bah.com

Acronyms

- AIM: Acquisition Information Management
- APB: Acquisition Program Baseline
- AS: Acquisition Strategy
- AT&L: Acquisition, Technology & Logistics
- AOA: Analysis of Alternatives
- BMMP: Business Management
Modernization Process
- BMSE: Business Modernization Systems
Engineering
- BMSI: Business Modernization & Systems
Integration/Investment
- BPR: Business Process
Reengineering
- C4: Command, Control,
Communication & Computers
- C4ISP: Command, Control,
Communications, Computers &
Intelligence Support Plan
- CARD: Cost Analysis Requirement
Document

- CCA: Clinger-Cohen Act
- CCD: Contract Completion Data
- CDD: Capability Development
Document
- CIO: Chief Information Officer
- CJCS: Chairman, Joint Chiefs of Staff
- COP: Community of Practice
- COTS: Commercial Off-the-Shelf
- CPD: Consolidated Procurement Directive
- CP&O: Commercial Policies & Oversight
- DAU: Defense Acquisition University
- DFAS: Defense Finance & Accounting Service
- DIAP: Defense-wide Information
Assurance Program
- DISA: Defense Information Systems Agency
- DITSCAP: Defense Information Technology
Security Certification and
Accreditation Process

Acronyms

- DoD: Department of Defense
- DOT&E: Director, Operational Test & Evaluation
- DOTMLPF: Doctrine, Organization, Training, Material, Leadership, Personnel & Facilities
- EA: Economic Analysis
- EPMB: Enterprise Portfolio Management Board
- FCB: Functional Control Board
- FOC: Full Operational Capability
- FOT&E: Follow-on Operational Test & Evaluation
- GAO: General Accountability Office
- GIG: Global Information Grid
- IA: Information Assurance
- ICD: Initial Capabilities Document
- ILSP: Integrated Logistics Support Plan
- IOC: Initial Operational Capability

- IOT&E Initial Operational Test & Evaluation
- IPT: Integrated Project Team
- IRMC: Information Resources Management College
- IT: Information Technology
- ITMA: Information Technology Management Application
- IV&V: Independent Verification & Validation
- JCIDS: Joint Capabilities Integration & Development System
- JCS: Joint Chiefs of Staff
- JROC: Joint Requirements Oversight Council
- KPP: Key Performance Parameters
- MAIS: Major Automated Information System
- MDA: Milestone Decision Authority
- MILDEP: Military Deputy
- NDAA: National Defense Authorization Act

Acronyms

- NII: Networks & Information Integration
- NMCI: Navy Marine Corps Intranet
- NSS: National Security Systems
- O&M: Operations & Maintenance
- OMB: Office of Management & Budgets
- OSD: Office of the Secretary of Defense
- PA&E: Program Analysis & Evaluation
- PDR: Post-Deployment Report
- PEO: Program Executive Officer
- PIR: Post-Implementation Report
- PM: Program Manager

- POM: Program Objectives Memorandum
- PPBS: Program, Planning and Budget System
- RAND: RAND Corporation
- ROI: Return on Investment
- SAE: Service Acquisition Executive
- SAMP: System Acquisition Management Plan
- SEMP: System Engineering Management Plan
- SPAWAR: Space & Naval Warfare System Command
- TEMP: Test & Evaluation Master Plan
- WS: Weapons Systems

Key References

- *Architecture Alignment & Assessment Guide*. CIO Council. Washington, D.C., October 2000. Retrieved from <http://www.cio.gov/archive/arch_align_assess_oct_2000.pdf>
- Chairman of the Joint Chiefs of Staff. *CJCSI 3170.01D*. Washington, D.C.: March 12, 2004. Retrieved from <http://www.dtic.mil/cjcs_directives/cdata/unlimit/3170_01.pdf>
- *Clinger-Cohen Act Community of Practice Homepage*. Defense Acquisition University/OSD(NII). Retrieved from <http://acc.dau.mil/simplify/ev.php?ID=16349_2&ID2=DO_TOPIC>
- *Clinger-Cohen Act (CCA) SPAWAR PM Survival Guide: 2002 CCA Compliance Processes*. SPAWAR CIO. Washington, D.C., May 15, 2002. Retrieved from <http://enterprise.spawar.navy.mil/cmpg/CMPG_Manuals_PublicSites/files/Templates/CCA%20Survival%20Guide.do>
- *Clinger-Cohen Assessment Survey 2003: Analysis of Survey Results*. CIO Council. Washington, D.C., May 2004. Retrieved from <http://www.cio.gov/documents/CCASurvey_2003_Analysis_Report.PDF>
- *Clinger-Cohen Implications for the Business Manager*. DoD DCIO Presentation. 2001.
- *CIO Roles & Responsibilities Engagement: Questions for CIO Structured Interview*. USGAO/U.S. Army, Code 310455. January 6, 2004.

Key References

- *Defense Acquisition Guidebook*. CIO Council. Retrieved from <<http://akss.dau.mil/dag/welcome.asp>>
- *Defense Acquisitions: Stronger Management Practices are Needed to improve DoD's Software-Intensive Weapon Acquisitions*. GAO-04-393. Washington, D.C.: March 2004. Retrieved from <<http://www.gao.gov/new.items/d04393.pdf>>
- *Defense Management: Tools for Measuring and Managing Defense Agency Performance Could Be Strengthened*. GAO-04-919. Washington, D.C.: September 2004. Retrieved from <<http://www.gao.gov/new.items/d04919.pdf>>
- Department of Defense Instruction 5000.2. *Operation of the Defense Acquisition System*. May 12, 2003. Retrieved from <<http://akss.dau.mil/dag/DoD5000.asp?view=document&rf=DoD5002\Subject.asp>>
- Department of Defense Directive 8500.1. *Information Assurance (IA)*. October 24, 2002. Retrieved from <http://www.dtic.mil/whs/directives/corres/pdf/d85001_102402/d85001p.pdf>
- *Information Technology: DoD's Acquisition Policies and Guidance Need to Incorporate Additional Best Practices and Controls*. GAO-04-722. Washington, D.C.: July 2004. Retrieved from <<http://www.gao.gov/new.items/d04722.pdf>>
- *IT Investment Management: A Framework for Assessing and Improving Process Maturity*. GAO-04-394G. Washington, D.C.: March 2004. Retrieved from <<http://www.gao.gov/new.items/d04394g.pdf>>

Key References

- *IT Management: Government wide Strategic Planning, Performance Measurement, and Investment Management Can be Improved.* GAO-04-49. Washington, D.C.: January 2004. Retrieved from <<http://www.gao.gov/new.items/d0449.pdf>>
- *Strategic Plan Fiscal Year 2003.* CIO Council. Washington, D.C., February 2004. Retrieved from <http://www.cio.gov/documents/CIO_Council_Strategic_Plan_FY04.pdf>
- United States Senate Committee on Armed Services. *National Defense Authorization Act: S.2400.* Washington, D.C.: May 11, 2004. Retrieved from <<http://www.cbo.gov/showdoc.cfm?index=5473&sequence=0>>

Study Participant List: May-December 2004

(Page 1 of 7)

Last	First	Organization	Meeting Type	Date
Boyd	Ray	ODC/DCIO/CP&O	CCA Kick-off	18-May-04
Campbell	Alice	OASD (HA)/TMA	CCA Kick-off	18-May-04
Dickover	Noel	NII CP&O	CCA Kick-off	18-May-04
Zachgo	Jacqueline	Army CIO	CCA Kick-off	18-May-04
Bainer	Carolyn	NII Acquisition	Planning Focus Group	1-J ul-04
Barlow	Bill	OASD (NII)/A&I	Planning Focus Group	1-J ul-04
Bednar	Judy	A&I	Planning Focus Group	1-J ul-04
Condon	Chris	OSD/NII Resources	Planning Focus Group	1-J ul-04
Frantz	Kathy	CIO	Planning Focus Group	1-J ul-04
Hammersley	Bonnie	OSD/NII Resources	Planning Focus Group	1-J ul-04
Johnston	Peggy	DoN CIO/Booz Allen	Planning Focus Group	1-J ul-04
King	Eustace	OSD/NII-DIAP	Planning Focus Group	1-J ul-04
Knaup	Leslie	NII Acquisition	Planning Focus Group	1-J ul-04
Little	Carl	OASD (NII)/A&I	Planning Focus Group	1-J ul-04
Marro	Mike	NII Acquisition	Planning Focus Group	1-J ul-04
May	William	NII Acquisition	Planning Focus Group	1-J ul-04
McCarthy	Judy	DoN CIO	Planning Focus Group	1-J ul-04
Meyers	David	CP&O	Planning Focus Group	1-J ul-04
Milanowski	Leo	NII Acquisition	Planning Focus Group	1-J ul-04
Mullins	Dave	NII/Acquisition	Planning Focus Group	1-J ul-04
Petsch	Judy	DoN CIO IA/Booz Allen	Planning Focus Group	1-J ul-04
Smith	Joan	HQDA CIO/G6	Planning Focus Group	1-J ul-04
Swacina	Ltc. Kathy	DACIO/G-6	Planning Focus Group	1-J ul-04
Szabados	Paul	OASD (NII)/OCIO/A&I	Planning Focus Group	1-J ul-04
Wiggins	Vanessa	CIO/G-6 Acquisition	Planning Focus Group	1-J ul-04
Baker	Larry	DAU	Planning Focus Group	27-J ul-04
Clavadetscher	Carl	NDU/IRMC	Planning Focus Group	27-J ul-04
Downes	Cathy	NDU/IRMC	Planning Focus Group	27-J ul-04

Study Participant List: May-December 2004 (Page 2 of 7)

Last	First	Organization	Meeting Type	Date
Eveland	George	NII Acquisition	Planning Focus Group	27-J ul-04
Galanos	Greg	CHMO	Planning Focus Group	27-J ul-04
LeValley	Mike	DoN CIO	Planning Focus Group	27-J ul-04
Mohammad	Mahrukh	IMT&R	Planning Focus Group	27-J ul-04
Richardson	Ronald	NII/CP&O	Planning Focus Group	27-J ul-04
Sadauskas	Leonard	NII/CP&O	Planning Focus Group	27-J ul-04
Strano	Carolyn	NDU/IRMC	Planning Focus Group	27-J ul-04
J ones	Tracy	Army CIO	Planning Focus Group	30-Aug-04
Keifer	Maryanne	Booz Allen	Interview	3-Sep-04
Levine	J ason	Booz Allen	Interview	7-Sep-04
Burket	Max	ASA-FM&C, OOASA-CE	Army CIO	8-Sep-04
Cherry	Byron	CIO/G-6 SAIS-ZR-1	Army CIO	8-Sep-04
Costello	Bob	Action Officer/AE100 (CIO/G-6)	Army CIO	8-Sep-04
Dickman	Cliff	CIO/G-6, SAIS-ERI	Army CIO	8-Sep-04
Dukanauskas	Arlene	CIO/G-6, Policy & Governance	Army CIO	8-Sep-04
Fornaro	Mark	ASAALT -- PEO EIS CNO	Army CIO	8-Sep-04
Garrison	Freida	Acquisition Policy/SAALT	Army CIO	8-Sep-04
Harris	Bill	ASA-FM (Army) -GFEBs	Army CIO	8-Sep-04
J ackson	Mary	CIO/G-6, Policy & Governance	Army CIO	8-Sep-04
Routten	Don	CIO/G-6, AAIC	Army CIO	8-Sep-04
Harris	Michael	DoN CIO IA Team/Booz Allen	Navy CIO	13-Sep-04
J ohnston	Peggy	DoN CIO IA Team	Navy CIO	13-Sep-04
McCarthy	J udy	DoN CIO	Navy CIO	13-Sep-04
Pemberton	Larry	DoN CIO IA Team	Navy CIO	13-Sep-04
Petsch	J udy	DoN CIO IA Team	Navy CIO	13-Sep-04
Reiter	Don	Liaison: Team Leader Meeting	Navy CIO	13-Sep-04
Wilczynski	Brian	DoN Arch. & Standards	Navy CIO	13-Sep-04
Higgingbotham	Carl	GAO	Interview	17-Sep-04

Study Participant List: May-December 2004

(Page 3 of 7)

Last	First	Organization	Meeting Type	Date
Baker	Robin	DFAS-TSO	DFAS	30-Sep-04
Brinkheide	J ohn	DFAS-DTC-EM&I	DFAS	30-Sep-04
Broyles	Ed	DFAS-TSO	DFAS	30-Sep-04
Brustad	Sharon	IT Policy/Sect. 508	DFAS	30-Sep-04
Davis	Audrey	CIO	DFAS	30-Sep-04
Godette	Patrick	IT (IA)	DFAS	30-Sep-04
Harp	Tim	DFAS CAE	DFAS	30-Sep-04
Lubash	Mike	DFAS-DT	DFAS	30-Sep-04
Munger	J udy	DFAS Systems Mgmt	DFAS	30-Sep-04
Pinc	J ames	IA Staff Support (Contractor)	DFAS	30-Sep-04
West	Mary Lynn	Infrastructure Systems	Interview	30-Sep-04
Hite	Randy	GAO	Interview	1-Oct-04
Baenre	Mark	AF-CIO/A	Air Force	4-Oct-04
Biros	David	AF-CIO/PO	Air Force	4-Oct-04
Bochonok	Ltc. J eff	GE421/GCSS PMO	DISA	4-Oct-04
Clayton	Bob	GBE3	DISA	4-Oct-04
Coker	George	CAE	DISA	4-Oct-04
Davidson	Rod	AF-CIO/SI	Air Force	4-Oct-04
Flayo	Kirk	GC	DISA	4-Oct-04
Gay	J ohn	AF-CIO/SI	Air Force	4-Oct-04
Graziosa	Amelia	CIO/SPI	DISA	4-Oct-04
Hardin	Verlin	GS PM DMS	DISA	4-Oct-04
Hittle	J ohn	CFE	DISA	4-Oct-04
Lyon	Tom	PL6	DISA	4-Oct-04
McConnelly	Keith	CIO/SPI	DISA	4-Oct-04
McGinness	Melissa	PL2	DISA	4-Oct-04
Nelson	Rick	AF-CIO/S	Air Force	4-Oct-04
Pitcher	Lt. Col. Kathy	AF-CIO/PX	Air Force	4-Oct-04

Study Participant List: May-December 2004

(Page 4 of 7)

Last	First	Organization	Meeting Type	Date
Reyes	Guerra	GES	DISA	4-Oct-04
Rice	Kim	GE4211/GCSS PMO	DISA	4-Oct-04
Root	Mark	CIO/SPI	DISA	4-Oct-04
Rosson	Doug	DISA NE12	DISA	4-Oct-04
Smith	Pamela	GE4112/GCSS-J PMO	DISA	4-Oct-04
Smucny	Tom	CIO/SPI	DISA	4-Oct-04
Wilkins	Linda	AF-CIO/RA	Air Force	4-Oct-04
Wolf	Kay	AF-CIO/PX	Air Force	4-Oct-04
Clausen	Jim	CP&O	CP&O	5-Oct-04
Moss	Willie	CP&O	CP&O	5-Oct-04
Noor	Asghar	CP&O	CP&O	5-Oct-04
Weber	Tom	CP&O	CP&O	5-Oct-04
Williams	Jeanita	CP&O	CP&O	5-Oct-04
Hawthorne	Skip	AT&L	Interview	12-Oct-04
Austin	James	DECA	DAU - PMT 352B	18-Oct-04
Belin	Deloise	Army	DAU - PMT 352B	18-Oct-04
Bosse	Scott	ASAALT	DAU - PMT 352B	18-Oct-04
Chyma	Timothy	Army	DAU - PMT 352B	18-Oct-04
Ditton	David	USMC	DAU - PMT 352B	18-Oct-04
Florence	Annette	MDA	DAU - PMT 352B	18-Oct-04
Gambrell	Barry	DTRA	DAU - PMT 352B	18-Oct-04
Gritti	Suzanne	NGC	DAU - PMT 352B	18-Oct-04
Jackson	Ronald	Air Force	DAU - PMT 352B	18-Oct-04
Johnson	Michael		DAU - PMT 352B	18-Oct-04
Karlovich	John	Navy	DAU - PMT 352B	18-Oct-04
Kilgallon	John	Army	DAU - PMT 352B	18-Oct-04
Lee	Jenny	Navy	DAU - PMT 352B	18-Oct-04
Leu	David	Navy	DAU - PMT 352B	18-Oct-04

Study Participant List: May-December 2004

(Page 5 of 7)

Last	First	Organization	Meeting Type	Date
Martin	Elaine	DTRA	DAU - PMT 352B	18-Oct-04
Matthews	Horace	Army	DAU - PMT 352B	18-Oct-04
Morgan	Paul	Navy	DAU - PMT 352B	18-Oct-04
Peck	Eric	USMC	DAU - PMT 352B	18-Oct-04
Puthoff	Fred	Army	DAU - PMT 352B	18-Oct-04
Robella	Barry	DAU	DAU - PMT 352B	18-Oct-04
Smith	Bryan	USMC	DAU - PMT 352B	18-Oct-04
Snyder	Michael	TMA	DAU - PMT 352B	18-Oct-04
Stutz	Jeff	Air Force	DAU - PMT 352B	18-Oct-04
Vergez	Bert	Army	DAU - PMT 352B	18-Oct-04
Watkins	Bruce	OSD	DAU - PMT 352B	18-Oct-04
Wright	Patricia	DCMA	DAU - PMT 352B	18-Oct-04
Yee	Roger	NAVSEA	DAU - PMT 352B	18-Oct-04
Zellmann	Bob		DAU - PMT 352B	18-Oct-04
Anderson	Thomas, LTC.	ASAALT	DAU - PMT 352B	19-Oct-04
Bonomo	James, LCDR	Program Manager, DISA	DAU - PMT 352B	19-Oct-04
Brennan	Kenneth	NAVSEA	DAU - PMT 352B	19-Oct-04
Cabrera	Ricardo	NAVSEA	DAU - PMT 352B	19-Oct-04
Castro	Lorena	NAVSEA	DAU - PMT 352B	19-Oct-04
Conant	Edward, Lt. Col.	USAF Requirements	DAU - PMT 352B	19-Oct-04
Cordova	Catherine	Acquisition Manager, MDA	DAU - PMT 352B	19-Oct-04
Costanzo	Andrea	Marine Corps	DAU - PMT 352B	19-Oct-04
Daus	Cliff	Missile Defense Agency	DAU - PMT 352B	19-Oct-04
Hagan	Joel, Maj.	HQ USAF/SAF	DAU - PMT 352B	19-Oct-04
Hodges	Ancel	AAESA	DAU - PMT 352B	19-Oct-04
Jacobs	Ron	Army	DAU - PMT 352B	19-Oct-04
Lopez	Stephanie	USTC LND to DLA	DAU - PMT 352B	19-Oct-04
Moran	James	DLA	DAU - PMT 352B	19-Oct-04

Study Participant List: May-December 2004

(Page 6 of 7)

Last	First	Organization	Meeting Type	Date
Papciak-Brooks	Cheryl	PEO EIS	DAU - PMT 352B	19-Oct-04
Reddy	Peter, Lt.Col., USMC	Deputy PM, Marine Corps	DAU - PMT 352B	19-Oct-04
Robertson	Ken, Maj.	APM	DAU - PMT 352B	19-Oct-04
San Pedro	Miguel	BUPERS SDC	DAU - PMT 352B	19-Oct-04
St. Amant	Donna	Raytheon	DAU - PMT 352B	19-Oct-04
Tapp	Eric	NAVSEA	DAU - PMT 352B	19-Oct-04
Vandroff	Mark, CDR	NAVSEA	DAU - PMT 352B	19-Oct-04
Warner	Gary, Col.	Marine Corps	DAU - PMT 352B	19-Oct-04
Weirsteiner	Richard	NAVSEA	DAU - PMT 352B	19-Oct-04
Williams	Julian	ATEC	DAU - PMT 352B	19-Oct-04
Allen	Darryl	NAVAIR CIO Office	DoN SAE's	29-Oct-04
Cunningham	Jennifer	OGC Harvey Wilcox Fellow	DoN SAE's	29-Oct-04
Deitch	Nancy	N6F-ACNO IT	DoN SAE's	29-Oct-04
Doering	William	PMS 500	DoN SAE's	29-Oct-04
Engelbert	Mary Ann	DASN (C4I/Space)	DoN SAE's	29-Oct-04
Greene	Jeff	DoN CIO	DoN SAE's	29-Oct-04
Hickok	Tom	OASD (NII)	DoN SAE's	29-Oct-04
Hom	Don	HQMC C4/CIO	DoN SAE's	29-Oct-04
Hunter	Jamie	NAVAIR PEO (T) Staff	DoN SAE's	29-Oct-04
Krasik	Sophie	Navy Asst. GC (RDA)	DoN SAE's	29-Oct-04
McChesney	Tim	NRL Code 5540	DoN SAE's	29-Oct-04
Nemetz	Bob	AT&L	DoN SAE's	29-Oct-04
Steele	Kathy	Deputy CIO, NAVAIR	DoN SAE's	29-Oct-04
Toner	John	ASN RDA (OAGC)	DoN SAE's	29-Oct-04
Trayer	Don	PEO-IT Senior Staff	DoN SAE's	29-Oct-04
Waxman	Paul	PEO(A) - IRM	DoN SAE's	29-Oct-04
Balven	Terry	AF Acquisition	Air Force SAE's	16-Nov-04
Canaban	Mike	AF Acquisition	Air Force SAE's	16-Nov-04

Study Participant List: May-December 2004 (Page 7 of 7)

Last	First	Organization	Meeting Type	Date
Cooper	Bill	J -8	Air Force SAE's	16-Nov-04
Davis	J ames	AF Policy	Air Force SAE's	16-Nov-04
Gadway	J eff	AF Policy	Air Force SAE's	16-Nov-04
Whitmore	J ohn	AF Acquisition	Air Force SAE's	16-Nov-04
Gilchrist	J ohn	AT&L	Interview	6-Dec-04
Gwodz	Larry	AT&L	Interview	6-Dec-04
Tavares	Ed	NII	Interview	6-Dec-04
Floyd	Dawn	Logistics Domain	Interview	8-Dec-04